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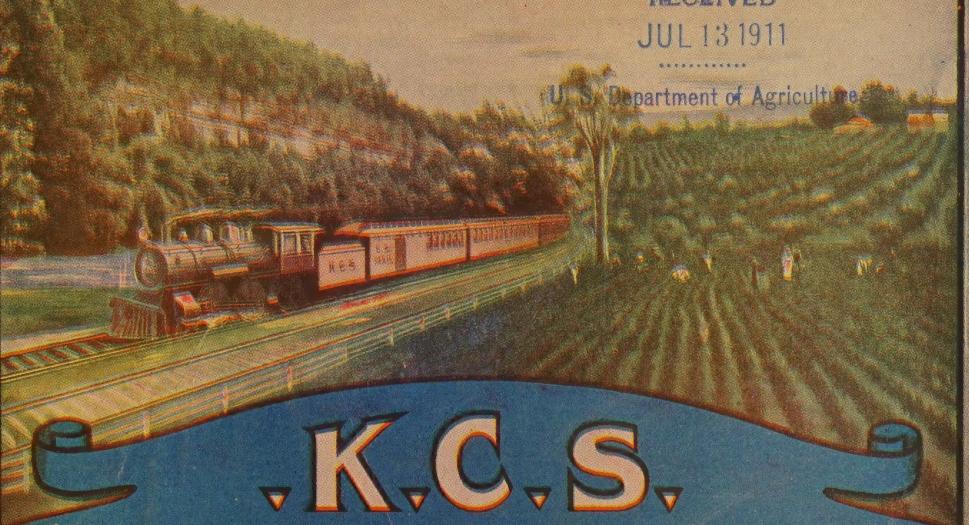
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K.C.S.  
**CURRENT EVENTS**  
AN  
INDUSTRIAL AND AGRICULTURAL  
MAGAZINE



PUBLISHED QUARTERLY BY  
THE KANSAS CITY SOUTHERN  
RAILWAY COMPANY

J. F. HOLDEN, VICE-PRESIDENT  
S. G. WARNER, GEN. PASS'R & TKT. AGT.  
WM. NICHOLSON, IMMIGR. AGT.  
KANSAS CITY, MO.

# Little River County

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## ARKANSAS

For the General Farmer, Stock Raiser and Dairyman

The best all around general farming and stock raising country, with fewer short comings and greater material advantages, and a greater variety of agricultural resource than any other country west of the Mississippi River is

### LITTLE RIVER COUNTY, ARKANSAS.

Here, within a compact area, is the largest acreage of rich bottom lands and fertile uplands to be found in Western Arkansas, with a well distributed rainfall of forty inches and practically no waste land. These bottom lands, none of them subject to overflow, produce annually from

Fifty to seventy-five bushels of corn,  
Twenty to thirty bushels of wheat,  
Forty to eighty bushels of oats,  
Two hundred bushels of potatoes,  
Three-fourths to one and one-half bales of cotton,  
One and one-half to three tons of hay,  
Five to seven tons of alfalfa per acre.

and most of the uplands produce two-thirds of this yield.

Little River County won the first prize on cotton and the first prize on alfalfa at the World's Fair in St. Louis 1904, and the first prize on corn at the Boys' Corn Club Exhibits, Arkansas State Fair, 1909.

An unexcelled stock country with a natural pasturage lasting more than nine months in the year and a soil capable of producing enormous quantities of forage of every kind. A country free from stock diseases, and in which alfalfa is green all the year round; green switch cane keeps stock fat all winter, and where winter soiling crops can be easily and profitably grown; where the winter climate is so mild that but little extra feeding and shelter are required. There is no section of country where hogs, cattle, sheep, horses and mules can be raised more cheaply than here. The water supply is very abundant, pure and of excellent quality, and the thousands of acres of alfalfa, grasses, forage and grain available here make dairying, hog raising and poultry very profitable.

Little River County, Ark., has within its borders the valleys of Red River, Little River and their numerous tributaries, and more than half of its area is good bottom or second bottom land. Three railways traverse the county, and no tract is more than ten miles from a railroad, and with the extension of the M. D. & G. Railway westward no tract will be more than six miles distant. Nearly every acre in this county is tillable land, and there are no rocky or hilly lands in the county.

Splendid little towns are scattered throughout the county, and there are good schools and churches in every neighborhood. Public health is good. Improvements cost less than one-third of what they do in other localities, because building material is very cheap. Our taxes are extremely low, and lands of the best quality can be had at prices ranging from \$10 to \$35 per acre, some lands cheaper.

Ashdown, the County Seat and largest town, is located near the center, has over 3,000 inhabitants, and is a pleasant place to live in. It is reached from all parts of the county by good public roads. It has three trunk lines of railway, the Kansas City Southern, the St. Louis & San Francisco, and the Memphis, Dallas & Gulf Railways, which afford splendid transportation facilities. There are in Ashdown a cotton oil mill, a stave mill, flour mill, two wholesale grocery houses, two banks, two good hardware, furniture and implement houses, a number of dry goods and grocery firms, a \$40,000 court house, a \$20,000 school building, a \$40,000 brick hotel, three fine churches and numerous other buildings. About six new dwellings and one or two brick business buildings are erected each month, indicating a steady growth.

Write us for further information in detail.

## SOUTHERN REALTY and TRUST COMPANY

W. L. PERKINS, Manager

ASHDOWN, ARK.

# BON AMI, LOUISIANA

The cut-over timber lands of this locality will produce corn, cotton, cane, forage, fine fruit, including peaches, oranges and figs as well as extra early truck of all descriptions.

There is a large industrial population in this region which needs food stuffs and forage in large quantity and affords a good home market for farm products of all kinds.

The Long-Bell Lumber Company has large holdings of cut-over timber lands at Bon Ami, La., which it will not colonize at present, but the company will sell land to farmers, fruit and truck growers at satisfactory prices and terms of sale, the object being to supply the local demand for farm produce. Address for information

**W. F. RYDER, Manager,  
Long-Bell Lumber Company  
BON AMI, LA.**

**JUNKER & EDWARDS  
REAL ESTATE  
BEAUMONT, TEXAS  
REFERENCE, ANY BANK OR BANKER**

## BLOSSOM HOUSE



EUROPEAN  
PLAN

OPPOSITE  
UNION  
DEPOT

KANSAS CITY, MO.

## Westbrook & Willoughby

We Have 100 of the Best Farms  
In East Texas For Sale. Write us.

**ATLANTA, TEXAS**

## Wm. HAMILTON

**FARM, TIMBER,  
MINERAL LANDS  
AND LIVE STOCK**

### IMMIGRATION AGENT

Caddo Abstract Building  
521 Marshall Street  
SHREVEPORT, LA.

## Wm. HAMILTON

# MENA, POLK COUNTY, ARKANSAS

The Ozark Mountain Region in which Polk County is situated, affords the best locations for ideal rural homes.

Here the general farmer can most profitably produce corn, oats, wheat, cotton, alfalfa, clover, broom corn, millet and all forage plants used in raising live stock and poultry.

Here the Fruit and Truck Grower has everything in his favor. Winter apples and peaches succeed here when they fail in other localities, and these, together with pears, plums, cherries, grapes, strawberries, blackberries, cantaloupes, melons, potatoes, tomatoes, onions and commercial truck crops generally, yield splendid financial results. Large shipments are made from Mena, Hatfield, Cove, Vandervoort, Wickes and Grammss, towns on the railway in this county.

Here the stock raiser has in his favor a mild climate, excellent natural pasturage, a long growing season for the cheap production of forage and a short quick transport to market. No better country anywhere for raising horses and mules, cattle, hogs, sheep, goats and poultry.

Good lands, unimproved, can be had in many localities moderately convenient to transportation for ten dollars per acre and improvements cost less here than one-third of what they do in an old settled country. Lumber is cheap and fuel can generally be had for the hauling.

Mena, Ark., the county seat, has 5000 inhabitants and is an excellent business point. It has an abundance of raw material for furniture factories, cooperage, box, crate and woodenware factories; for slate products of all kinds; brick manufacture; cotton seed oil and fertilizer factory; fruit canning, preserving, and pickling works; creamery, cheese factory and other enterprises. Owing to the rapid settlement of the adjacent country there are also good openings in commercial and professional lines.

The greatest attraction of Mena and Polk County for the healthseeker is its splendid summer and winter climate. There is no hot sultry summer or a grim cold winter in this region, but instead, a cool bracing temperature in a pure undefiled atmosphere. Pure soft water is found everywhere and excellent medicinal springs abound in many places. The altitudes of the City of Mena vary from 1200 feet to 1600 feet.

Visitors may be accommodated in three good hotels and can also find accommodations with private families.

The Mena Land and Improvement Company has in Mena some fifty or more cottages and more pretentious buildings which it will rent or sell to those who may desire to locate at Mena, or who may desire to spend their summer or winter vacations there. Photographs of some of these are shown on the opposite page and descriptions will be furnished on application to

**MENA LAND & IMPROVEMENT CO.**  
**W. C. B. ALLEN; Manager**

A collage of six black and white photographs of houses, arranged in a grid-like pattern with decorative borders and labels (1, 2, 3, 4, 5, 6). The houses vary in style, including bungalows and larger multi-story homes. The background features stylized circular and triangular patterns.

1

2

3

4

5

6

Y.Y. HOUSES FOR SALE OR RENT BY THE  
MENA LAND AND IMPROVEMENT CO.

## DE QUEEN, ARK.

A hustling city of 3,500 people, has been selected as a division point of the Kansas City Southern Railway. Population will double in the next three years.

Right now is the time to invest in city and farm property. Good farming land at \$10 per acre.

Write for descriptive circulars.

**Farmers & Merchants Bank and Trust Co., De Queen, Ark.**

Our Trust Company back of every deal.

**Texas Lands in the Rain Belt, \$3 per acre & up**  
200 acres truck and fruit land, per acre \$5.  
100 acres rich timber land, per acre \$8.  
75 acres rich prairie, dark sandy, per acre \$10.  
Write us for land list.

**BEVIL & QUINN,** BEAUMONT, TEXAS

**Von Hartmann Realty Co.**  
Westville, Oklahoma  
**OKLAHOMA LANDS**

Large tracts of timber, grazing lands, farms, oil leases, zinc lands, coal lands. Oklahoma and Arkansas. Write for particulars.

**FEEMSTER & SPEER**  
Office at Elberta Hotel  
**Real Estate and Live Stock**  
We have choice improved fruit and grain farms at a bargain. Unimproved lands, timber or prairie, in Ark, or Okla., well located, at prices from \$3, \$4, \$5, \$8, \$10, \$12 per acre and up, in 40a, or up to 1800 acres in a body.  
Free board at Elberta Hotel to buyers.  
GENTRY, ARKANSAS

## A Famine Coming!

That's the dire forecast of prognosticator Irl R. Hicks, but drought predictions excite no panicky feeling in this neck of the woods, for Scott county is located in THE RAIN BELT and, as the record shows NOT ONE total crop failure during the past forty years, we are certainly in the ZONE OF CROP CERTAINTIES. There are no sandy wastes or malarial regions amidst our fertile green valleys and breezy Ozark hills. Shun bake-oven temperatures and cold storage climates—Come to Nature's Mid-Continent Sanitarium, Western Arkansas. Literature upon request. Sec'y Scott County Development Ass'n.

Waldron, Ark.

**Farm Bargains** Good lands, crops, schools, climate and health. Best grass country in the South. Highest part of La. (n. w. part.) Improved farms \$12.50 per acre; improvements worth the money. East of the dry belt. Fine truck and fruit country. More profit growing stock, hay and feed here than North. Literature free.  
De Soto Industrial Co., Mansfield, La.

**TO CATHOLICS:** There is a fine Catholic church and school, and an abundance of cheap but excellent farm lands at and near Mena, Arkansas. If seeking a new home, write me for information.  
Father A. P. Gallagher

## DO YOU WANT A HOME IN THE "Beautiful Ozarks" OF MISSOURI

### In the Famous Strawberry Land.

Apples, Peaches, Pears, Grapes, Raspberries, etc., all grow excellently. Ideal location for the dairy and poultry business. We offer for sale 60,000 acres of land in 20 acre tracts or more, cheap and on easy terms. Located in Stone and McDonald Counties.

For further information address

**McDonald Land & Mining Co.**

Rooms 301-2 Miner's Bank Building  
Joseph C. Watkins, Mgr. JOPLIN, MO.

A. OSWALD

E. T. BUTLIN

## MAKE NO MISTAKE

Before Locating Investigate Jefferson County, Texas  
For real bargains and reliable information call on or write

**The Oswald Realty Co.**  
Beaumont, Texas

I have fifty (50) improved farms for sale in the corn, red clover and blue-grass belt, 40 miles south of Kansas City, Mo.

Send for lists.

**J. B. WILSON,** Drexel, Mo.

## IF YOU

Want to buy or sell land in the Zinc and Lead fields and the Great Farm Belt of Southwest Missouri, write

**The Conqueror Trust Company**  
JOPLIN, MISSOURI

## TO LAND BUYERS

I have no land for sale, but make inspections and reports for land buyers on lands in Polk and Sevier Counties and any other counties desired. Twenty-five years experience. I will show you the bad features as well as the good, so that you will use good judgment when buying. I will, if desired loan you forty per cent of the value of the land and inspect your titles also. References furnished. Address

W. A. RAGLAND,  
Opposite Antlers Hotel, Mena, Ark.

# LOUISIANA

## *HOME OF THE FARMER*

Louisiana today offers the greatest inducements to the investor, homeseeker and speculator of any State in the Union. It is immaterial as to how much you have to invest, as your earnings will be proportionate.

There are three classes: First, the investor with large sums to put into large propositions; second, the homeseeker, looking for a place to locate; third, the small investor, who wants to place in a land investment so much a month.

Louisiana is the future Mecca for the full tide of Northern, Eastern and Western immigration.

The high price of land and labor is now driving our farmers and stockraisers, especially the younger generation, to Louisiana, for we have here a new country with great possibilities, and it is the logical spot for YOU.

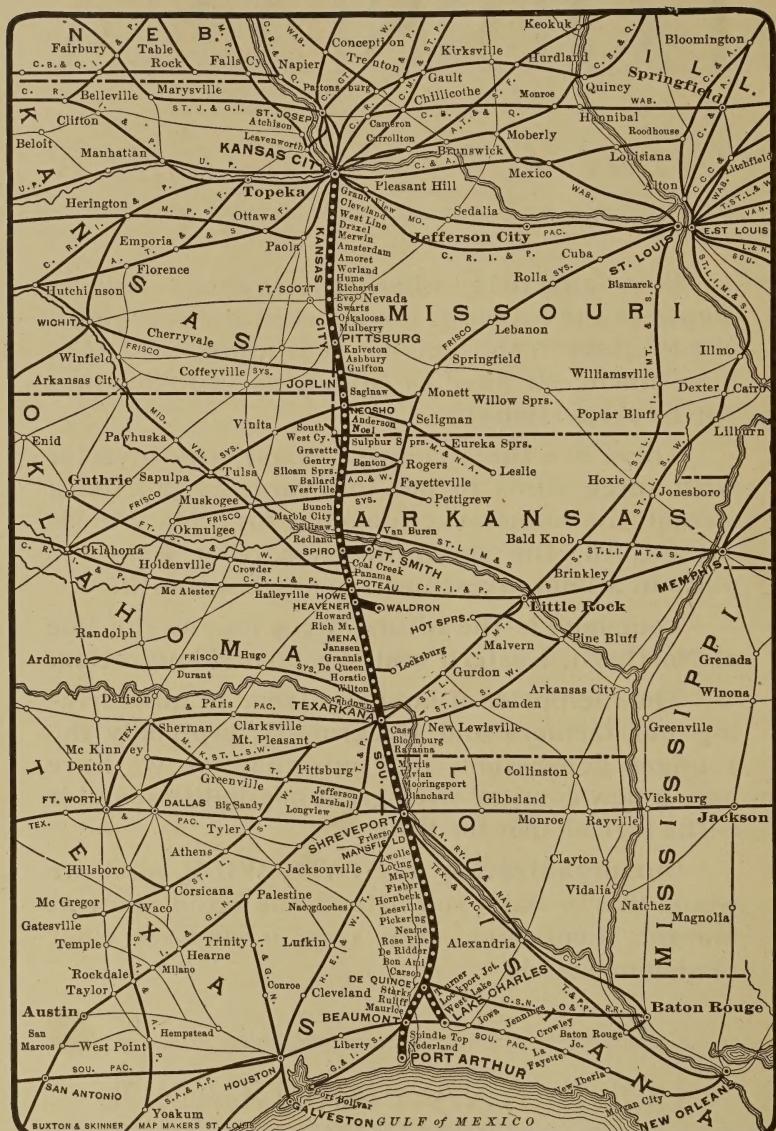
Our organization is STATE WIDE, and we would like to have you attend the Land Show at Monroe, Louisiana, May 4, 5, 6, and see what Louisiana can do.

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### LOUISIANA FARM LANDS CONGRESS

W. A. JONES, *Secretary*

SHREVEPORT, LA.



MAP OF THE KANSAS CITY SOUTHERN RAILWAY

BUXTON & SKINNER

MAP MAKERS ST. LOUIS

# CURRENT EVENTS

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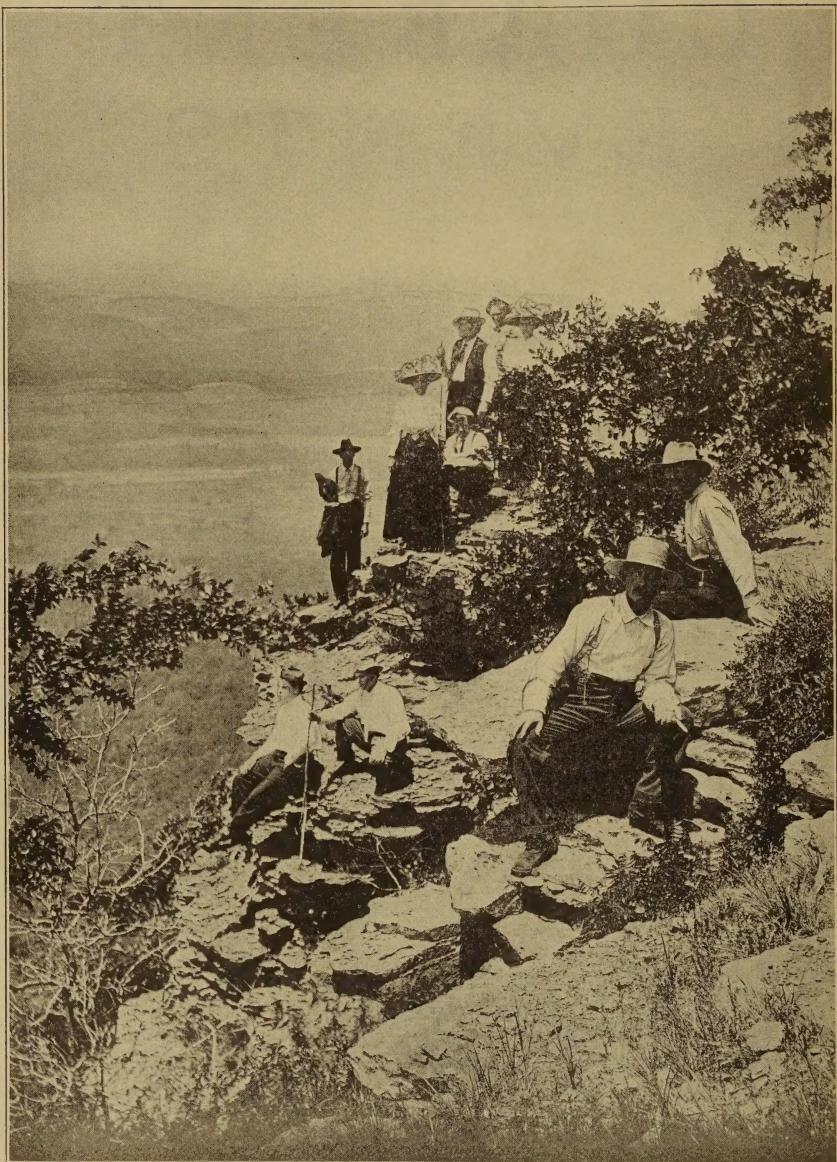


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On the Bluffs, near Heavener, Okla.

## The Agricultural Resources of the K. C. S. Country.

The civilization of the world begins and ends with the plow. The final achievements of human endeavor rest upon the man who handles the plow. Without him, practically nothing is attainable. The country which has the soil and the climate, enabling it to supply its own needs and that of other sections besides, has its prosperity assured for all time and where the food supply is, industrial effort secures its best rewards. In this direction the country along the Kansas City Southern Railway is particularly well favored, as it has not only all the agricultural resources common to the United States, but has also the fuel and a wealth of raw material, drawn from the forest, the mines and the quarries available for industrial development. The food supply, the raw material and the fuel are all in the same territory and in the struggle for existence, the combatant with the greatest resources invariably wins. Along the Kansas City Southern Railway, with only about 18 per cent of its tillable land under cultivation, the country produces every crop known in the United States, ranging from the semi-tropical crops of the Gulf Coast to those incident to Northern Canada. On an east and west line of railway, the variety of crops that could be grown would naturally be limited to the lines of latitude, but along a railway running north and south nearly 800 miles, as does the Kansas City Southern Railway, several degrees of latitude are crossed, resulting in a much greater range of production. This range of production is further increased by the differences in altitude, ranging from sea-level to 2,000 feet above. It is therefore entirely practicable to grow rice, sugar cane, cotton, figs and oranges at one end of the line and semi-arctic crops at the other. As a matter of fact, the climatic range is such that the residents along the Kansas City Southern Railway could produce everything needful for human consumption in the way of food or clothing, except silks, coffee, tea, quinine and some tropical fruits. There is a great diversity of soils ranging from smooth, undulating prairies, composed of black loams, to hilly, gravelly lands, red and black forest soils, rich red and black river bottom lands and almost level Gulf Coast prairies.

Southwest Missouri and Southeast Kansas, between Kansas City, Mo., and Neosho, Mo., consists in the main of comparatively

smooth prairie lands, interspersed with small forest and hilly areas. In the southwest corner of Missouri, in McDonald County, where the Ozark uplift begins, the country is more broken and covered with forest. Southwest Missouri has been settled for a good many years; in some localities quite densely, in others sparsely, the earlier settlement of the country being influenced by the construction of the railways.

The man who wishes to farm as they do in Illinois, Indiana, Kansas or Iowa, grow wheat, corn, flax, oats, domestic grasses and raise fine live stock on cheaper lands, will find all he is looking for right here. The wheat grown in this region makes the best flour and is eagerly sought in the eastern and European markets. The yield runs from fifteen to forty bushels to the acre. Indian corn is most extensively grown and is one of the most profitable crops. It yields from forty to eighty bushels to the acre and is the chief reliance of the farmer who fattens his beef, mutton and pork with it preparatory to marketing. Rye, oats, millet, sorghum, flax are staple crops for which there is a steady demand. The natural pasturage is exceptionally good during the summer months and the raising of high grade horses, mules, cattle, hogs and sheep is one of the principal pursuits of the farmers. Live stock of all descriptions is shipped in great numbers and dairying is an important business in many places. Poultry and eggs are produced in enormous quantity and in the more hilly country in McDonald and Newton Counties hundreds of car loads of peaches, apples and berries are produced and shipped. In the prairie region from eighty to two hundred acres is the size of the average farm, in the timber country usually from forty to one hundred acres. The market for most of the produce of this section is in Kansas City, Joplin, Mo., and Pittsburg, Kansas. Near the last named two cities is a mining population of 150,000 people, all of whom are consumers of farm produce. In Southwest Missouri there will be found all the commercial advantages and social comforts incident to an old settled neighborhood. Good roads, numerous public schools, churches, fine local markets, excellent shipping facilities and the many amenities of social life are part and portion of the new home. The price paid for the same is very moderate



Farm Scene near Heavener, Okla.

compared with values in the older settled states. The country surrounding the towns of Lisle, Drexel, Merwin, Amoret, Amsterdam, Hume, Richards, Pittsburg, Joplin, Neosho, Anderson, Goodman and Noel, all in Missouri, offers these attractions.

The farmer who desires to raise fruit, commercial truck, berries and poultry in addition to the regular field crops of the country will find Northwestern Arkansas and Northeastern Oklahoma well suited for the purpose. From Neosho, Missouri, south to the Arkansas River, the country is more hilly and diversified. This section of country lies along the western slope of the Ozark uplift or mountains. There is an abundance of smooth fertile land well suited for every farming operation, but there is also land, more or less hilly, which is splendidly adapted to fruit growing, and the farmers who have settled upon this kind of land have demonstrated that a large farm is not at all essential to profitable farming, and that a large income can be secured from a smaller tract, by growing crops for which the market is willing to pay a good price. All of this region was originally covered with forest. There is now a very large acreage in cultivation and thousands of acres are cleared every year for new farms. Commercial fruit growing here reaches its greatest development. Close to the railway stations and within five miles thereof a specialty is made of the cultivation of fine fruits, berries, and the raising of poultry and the best of high grade live stock. A little farther out from the towns the general field crops of the country are grown and large numbers of horses, mules, hogs and cattle are raised. The apple is the preferred fruit, though enormous quantities of berries are likewise shipped with profit.

Peaches are grown extensively, are shipped in car load lots and are highly profitable when a crop is obtained. The annual shipments of apples, peaches and strawberries have a money value of three million dollars in Benton and Washington Counties, Arkansas, and a million more in Newton and McDonald Counties, Missouri, and the counties in Oklahoma traversed by the Kansas City Southern Railway. In point of fertility, the valley lands run equal with the best in Missouri or Kansas, and the uplands in general are excellent farming lands. In the foothills of the Ozark Plateau or Uplift, some of the uplands have a covering of gravel formed by the decomposition of rock and these are preferred in the production of fruit, which seems to yield better and mature earlier on these lands than on any of the others. In addition to the standard field crops grown in common with Missouri, the cultivation of cotton now becomes an important item. The quantity of cotton handled at Fort Smith, Spiro, Westville, Stilwell, Poteau and other points will probably exceed 150,000 bales annually, worth about \$10,500,000, sometimes more, sometimes less.

Bordering Arkansas on the west is the new state of Oklahoma, a country partly hilly, but containing a very large acreage of very fine, fertile farm lands. The products are identical with those of Arkansas. These have until recently been held as tribal property and could not be sold to whites. Within the past two years the lands have been subdivided and allotted to the Indians individually, and part of these Indian holdings under certain rules and regulations may be sold to white settlers. Since the opening of these lands a great many new settlers have availed themselves of

the opportunities offered. Near the Kansas City Southern Railway the lands of Oklahoma are timbered except in the vicinity of Sallisaw, Spiro and Poteau, where there are some prairie lands.

The towns in this section are without exception in a prosperous condition and the rural population is, as a rule, fairly well to do. All the towns have made a substantial growth and are continuously growing. This part of the country is a most delightful place of residence, the water the best in the world, the landscape generally beautiful and the several health resorts in this region are annually visited by several thousand people from other states. The towns of Anderson, Goodman, Lanagan, Noel, Mo., and Sulphur Springs, Gravette, Decatur, Gentry, Siloam Springs, in Arkansas, Westville, Stilwell, Sallisaw, Spiro, Oklahoma, Fort Smith, Arkansas, are all substantial business towns having populations ranging from 700 to 3,000 people, except the city of Fort Smith, which has 35,000 inhabitants.

Arkansas and Oklahoma south of the Arkansas River to Red River present many of the characteristics of Northwest Arkansas. Near the Arkansas, Poteau, Red and Little Rivers are broad fertile valleys with gently undulating uplands, and rich river bottom lands, and in Sebastian, Little River, Sevier and Miller Counties, Arkansas, and Sequoyah and Le Flore Counties Oklahoma, the acreage of this class of lands is very large. In Scott and Polk Counties, Arkan-

sas, and McCurtain County, Oklahoma, the country is more broken and in places even mountainous, but there are many splendid valleys of considerable area and smooth table lands, suitable for general farming, stock raising and all other agricultural operations. The valley lands near the larger rivers are devoted almost entirely to the cultivation of corn, cotton, alfalfa, potatoes, grain and general forage crops and the yields obtained are large and profitable. Cotton on these valley lands yields from half a bale to a bale and a half to the acre, corn from forty to eighty bushels, alfalfa from four to six tons, wheat from fifteen to thirty bushels, oats from forty to sixty bushels, Irish potatoes from one hundred and fifty to two hundred bushels and other field crops in proportion. On the uplands the yield per acre, in these crops is somewhat smaller but nevertheless large enough to be profitable. Stock raising as a part of farming operations is very profitable as forage crops in this section are very prolific, the natural pasture very good and of nearly nine months duration, the climate mild and the water of excellent quality. For the reasons stated live stock of all descriptions can be raised more cheaply here than almost anywhere else. In Polk, Scott and Sevier Counties, Arkansas, general farming and stock raising are the prevailing pursuits as in other counties, and are equally profitable. Near the railway stations, commercial fruit and truck growing



Alfalfa Field near Shreveport, La.



Stacking Alfalfa Near Shreveport, La.

are, however, the preferred occupations, and this industry has reached large proportions. The apple is profitably grown on the highlands and the quality produced is excellent, holding its own in any market. The peach is the preferred tree fruit in all the counties south of the Arkansas River, and in Polk and Sevier Counties the yield is almost certain and the revenues obtained very large. In Sevier County there are about 12,000 acres devoted to fruit and truck growing. About half of this acreage is planted in peaches, and at Horatio, Ark., in the same county, is the Alberta Peach Orchard of the Southern Orchard Planting Company, containing 3,000 acres of bearing trees. The crop from this orchard alone, for 1911, is estimated at 1,000 car loads. In Polk County nearly every railroad station ships peaches and berries in large quantity, as well as cantaloupes, melons, potatoes, onions, tomatoes, etc., and all stations ship cotton, hogs, cattle, poultry and eggs, lumber etc. etc.

Between Little River and Red River are extensive areas of fertile lowlands, entirely free from overflow, which are being rapidly brought under cultivation. They are excellent corn and cotton lands, and the production per acre is unusually large. The lands were originally heavily timbered with pine and hardwoods, and have been settled to some extent since the timber was cut out by the lumber companies. In addition to cotton and corn, fine crops of oats, strawberries, potatoes, plums and grapes are produced, though cotton and corn are the staple

crops. Live stock of all description does well on these lands, as they are rapidly covered with a luxuriant growth of nutritious grasses after the timber is removed.

This section of country has been settled for more than seventy years, but owing to the absence of transportation facilities it was but thinly populated. The available tillable acreage is very large and lands are remarkably cheap as compared with other localities. This region is in every respect healthful, abundantly supplied with the purest water and affords most splendid opportunities to the man who needs a home. A little money will go a long way, where building material is extremely cheap and fuel can be had for the hauling, where land can be had at the lowest price, where there is open pasturage nearly nine months in the year and a paying crop can be grown in a few months after planting.

The principal towns in this region are Poteau, Howe and Heavener in Oklahoma; Waldron, Mena, Hatfield, Cove, Wickes, Granniss, Gillham, De Queen, Horatio, Lockesburg, Winthrop, Wilton, Ashdown and the city of Texarkana, all of them important shipping points, and maintaining an industrial population engaged in lumbering, mining or manufactures.

From Red River south to the Coast there is considerable variety in the soils and general characteristics of the country. The Red River bottoms are extremely fertile, producing from one to two bales of cotton, or 50 to 80 bushels of corn, or 6 to 8 tons

of alfalfa to the acre. As truck lands they are unexcelled, and their production of the various kinds of forage is enormous. Here the country has been settled more or less thickly for a hundred years or more. Shreveport, the second largest city in Louisiana, handles annually about three hundred thousand bales of cotton and is the supply point for a vast territory easily reached by rail and water. The Sabine, Neches and Calcasieu River bottom lands are not less fertile than those of Red River and where accessible to railway transportation are well farmed. South of the Red River Valley lands lie the undulating red lands, covered with pine and hardwoods. The creek bottoms and depressions are generally very fertile, the uplands being of varying fertility, though all of them will produce fair crops. Cotton and corn, oats, potatoes, sugar cane for syrup, peanuts, sweet potatoes, berries and commercial truck are the principal crops. The local market is extra good. South of the hill lands, as these red lands are locally named, are the pine flats, covered with a heavy growth of long leaf yellow pine. Wherever these lands, usually a rather heavy dark soil, have been cultivated they have produced abundant crops of corn, cotton, vegetables of all kinds, potatoes, berries and fruits, and they produce a good crop of peaches and berries.

There are over 100 sawmills in operation in that part of Louisiana, each employing from 50 to 2,000 men, all of whom are consumers of farm and orchard produce and provide a splendid local market. Forage of any kind is worth from two to three times as much here as in any of the old settled

states, and the land will produce it abundantly.

The imports of feed and foodstuffs at Leesville and Stables in Vernon Parish, La., for 1910 amounted to 275 carloads of hay, corn, oats, etc., valued at \$137,500, and vegetables valued at \$15,000, a total of \$152,500. For Vernon Parish the imports were valued at \$350,000 for the year. All this produce can be grown at home, but at the present time the bulk of the population is engaged in industrial pursuits.

The Coast prairies extend inland about seventy-five miles. In the last ten to twelve years about 300,000 acres have been devoted to rice growing, an industry which has proved itself to be very profitable, and it has been found that sugar cane, cotton and corn will do equally well. The thorough drainage of these prairie lands for rice growing has made them available also for other crops, now grown with profit. Truck gardening is a growing industry in this section, and as the product of this region is the earliest in the market, has been very profitable. Certain varieties of oranges and figs are profitably grown, and in a few years orange groves will be cultivated for the revenue they can be made to yield. Cattle, sheep and hogs do well in Louisiana, and owing to the very favorable climate are raised at very little expense. The open pastureage lasts nearly all the year round, and nowhere can forage be produced more abundantly and cheaply than here.

The cities and towns in this section of country are Shreveport, La., Ravanna, Ark., Bloomberg and Atlanta, Tex., Rodessa, Frieson, Mansfield, Florien, Many, Converse,



Farm Scene Near Ballard, Okla.

Zwolle, Hornbeck, Leesville, De Ridder, De Quincey, Pickering, Bon Ami and Lake Charles, La., and Beaumont, Nederland and Port Arthur, Tex.

Within fifteen miles of the track of the Kansas City Southern Railway there are over ten million acres of land which will ultimately be brought under tillage. About two-thirds of this is available for settlement now. The remainder is covered with merchantable timber, which in a few years will have been removed.

One great advantage to the settler on the

line of the Kansas City Southern Railway is the fact that he can reach the Northern markets with his early crops if living south, or reach the Texas and Louisiana markets with his late products if he live north. All along the line there is a great local lumber and mining industry and a number of fairly large cities, which consume home-grown products. The surplus of grain and cotton has the shortest route to the sea for export, and these advantages are certainly worth something.

## Sleepy Grass

F. E. ROESLER

We had finished dinner at the Ruidoso store, in the White Mountains of New Mexico, and for the want of something better to do were examining some specimens of ores which were lying on the counter. As we knew practically nothing about mining matters, we talked in a low tone and looked wise, even if we were not. A tall be-whiskered man, in the garb of a prospector, who had eyed us for some time from his perch on a stack of soap boxes, finally joined us and asked our opinion of the specimen he held in his hand. We assured him that our opinion would not be worth a cent to anybody, but if those yellow shining particles in the piece of quartz were not iron or copper pyrites, they might be gold, and in such event he had "good stuff." He said that it was the genuine article and came from a prospect hole on the Rio Bonita.

Our team had been watered and fed and was being hitched up when he inquired our destination, which, we told him, was Nogal. His request to take him with us was granted and we found him a well informed traveling companion. He had prospected in California, Utah, Dakota, Mexico, New Mexico, Texas and Arizona, had worked in coal mines, stone quarries, gold, copper and silver mines and on placer grounds, and had gathered much experience if not wealth during his wanderings.

"Does prospecting pay? Yes and no. Every mountain climber gets two or three big opportunities in a lifetime. He labors and sweats, starves and thirsts, maybe one year, maybe ten and sometimes twenty. Then a good thing comes his way. The property finds a purchaser at a good price. From the lonely mountain gulch an inexperienced man finds his way to the big city. Six months later he comes back—often on foot. He has had a good and expensive vacation. The ten, twenty, or fifty thousand dollars, the product of ardu-

ous toil, are gone and he makes a new start. He may win a second and a third time, but in the end he is generally no richer than when he began."

While passing through a narrow canon, the road ran through a patch of very tall and very green grass resembling a field of cultivated oats. Seizing a few of the stems, the writer chewed them, spat them out and remarked: "This grass tastes like stale watermelon. What do you call it?"

"That is sleepy grass. What! Never heard of it before? Everybody here knows it. Native horses never eat it, but strange horses will, and they become so sleepy that it is almost impossible to wake them. Cattle like it and it does not effect them, but horses rarely eat it oftener than once. It makes a fine hay and when cured is harmless. The narcotic in it is volatile. Horses have been known to sleep so long that they died of starvation."

Our prospector then began to laugh, and then continued. "What I tell you is perfectly true. I am just thinking of the wooly time we had at Nogal twenty years ago, and of an occasion when sleepy grass made quite a difference to some of us in a financial way. Placer gold had been found in Nogal Canon, up in the Jicarillas and other places, and a healthy mining excitement was on. There were prospectors in every canon between here and White Oaks, probably between three and four thousand. At Nogal was a general supply point and also a fine collection of merchants, saloon keepers, speculators and gamblers. Money was abundant and was changing hands rapidly.

"Among the gamblers were two who had come from Kentucky with a fine team of horses. They won most of the loose money in Las Vegas, had cleaned out White Oaks, and had gotten nearly every dollar the soldiers at Fort Stanton had, when they dropped in at Nogal. They were as slick a pair of bunco steerers as I ever heard of."

They were expert in the use of every gambling device and within a month of their arrival they had gotten most of the money circulating in the vicinity. While nearly every loser was satisfied that he had been flim-flammed or buncoed in some inexplicable way, none had sufficient tangible evidence to satisfy himself that he had been cheated. None would plead the baby act and yet there was a moral certainty that dishonest games were being played. The largest loser was a Mexican named Ramirez, who had parted with many a hard earned dollar. When dead broke he devoted all his spare time to watching the strangers at play but obtained no clues.

"The paymaster was due at Fort Stanton and the strangers arranged for a horse race to take place there after his arrival. They backed one of their horses against a native pony and offered long odds. Takers at Nogal were few for a time, but the day before the race the whole population and hundreds of prospectors from the hills appeared at Stanton to watch the race. The Apaches also entered a pony and came in considerable numbers. In the evening before the race Ramirez had offered the strangers the use of a small pasture, lying along the road between Nogal and Fort Stanton. The two ponies and the Kentucky horse were left there over night. Half an hour before the race took place Ramirez was observed borrowing money right and left and backing the native pony. An intimate friend, looking for a tip, received the information that Ramirez had lain on the hill near the pasture all night and had carefully

watched the horses; that near daybreak the Kentucky horse had filled itself full of sleepy grass, which grew rank in one corner, and as the effect is apparent in six hours, the hour for the race, he was betting on a sure thing. One of the gamblers had been awake all night but he had never heard of sleepy grass. Before the start of the horses every bet was taken. The tip was given to the soldiers, and the bluff was carried far enough to cause the gamblers to bet every dollar they had and their team likewise.

When the horses were brought up the expert ranchmen soon noted that Ramirez's observations were correct, though the Kentuckians noted nothing unusual. When it came to a test of speed, however, the ponies out-stripped the Kentuckian and left him a quarter of a mile behind, and the native cow pony outran the Indian horse. The officers in the garrison were dead broke to a man, as they had backed the Kentucky thoroughbred. Of the soldiers, half were in the guard-house on charges of drunk and disorderly during the following week. In Nogal not a drop of whiskey remained after the good citizens returned from the race, and a terrific drouth prevailed for nearly a month before new supplies came in. Mountain water and condensed milk were the only tipplings obtainable. The two gamblers walked back to Las Vegas, wondering, no doubt, as to what had happened. Ramirez was known to have plenty of money, but no one ever saw him in a game of poker after the horse race.



At the Cotton Gin, Sallisaw, Okla.

## Climate, Rainfall and Altitudes of the K. C. S. Country

All of the country along the line of the Kansas City Southern Railway lies between the 93d and 95th meridians, east of the semi-arid or plains country, and the line of the railway traverses several degrees of latitude between Kansas City, Mo., and the Gulf. It also traverses a mountainous district, and it is therefore natural that there should be some differences in climatic conditions.

The altitudes modify the temperature more or less, and a difference of several hundred feet is readily shown in the temperature and local humidity. Along the track of the Kansas City Southern Railway the altitudes above sea level are as follows: Kansas City, Mo., 817 feet; Grandview, Mo., 1,044 feet; West Belton, Mo., 1,094 feet; Cleveland, Mo., 976 feet; Drexel, Mo., 999 feet; Amsterdam, Mo., 885 feet; Hume, Mo., 897 feet; Richards, Mo., 839 feet; Pittsburg, Kans., 932 feet; Joplin, Mo., 972 feet; Neosho, Mo., 1,011 feet; Goodman, Mo., 1,257 feet; Anderson, Mo., 904 feet; Noel, Mo., 828 feet; Sulphur Springs, Ark., 905 feet; Gravette, Ark., 1,218 feet; Siloam Springs, Ark., 1,152 feet; Westville, Okla., 1,135 feet; Stillwell, Okla., 1,110 feet; Sallisaw, Okla., 531 feet; Spiro, Okla., 490 feet; Poteau, Okla., 459 feet; Heavener, Okla., 561 feet; Rich Mountain, Ark., 1,612 feet; Mena, Ark., 1,145 feet; Cove, Ark., 1,047 feet; Hatton, Ark., 1,186 feet; Granniss, Ark., 922 feet; Gillham, Ark., 784 feet; De Queen, Ark., 381 feet; Horatio, Ark., 337 feet; Winthrop, Ark., 336 feet; Ashdown, Ark., 332 feet; Texarkana, Tex., 292 feet; Bloomberg, Tex., 309 feet; Mooringsport, La., 199 feet; Shreveport, La., 210 feet; Mansfield, La., 331 feet; Converse, La., 215 feet; Noble, La., 275 feet; Leesville, La., 238 feet; De Ridder, La., 206 feet; De Quincey, La., 85 feet; Beaumont, Tex., 24 feet; Port Arthur, Tex., 8 feet; Fort Smith, Ark., 438 feet; Lake Charles, La., 19 feet.

The average temperature for 19 years at Kansas City, Mo., has been as follows: January, 25.4; February, 31.6; March, 40.8; April, 54.4; May, 64.6; June, 73.4; July, 78.0; August, 76.2; September, 67.4; October, 56.0; November, 41.5; December, 32.6; average, 33.5. Southwest Missouri, for 18 years, January, 30.0; February, 37.0; March, 45.0; April, 57.0; May, 67.0; June, 73.0; July, 78.0; August, 75.0; September, 68.0; October, 58.0;

November, 46.0; December, 40.0; average, 56.0. Fort Smith, Ark., for 18 years, January, 36.2; February, 42.8; March, 50.4; April, 62.9; May, 69.1; June, 77.2; July, 81.4; August, 79.0; September, 73.4; October, 62.8; November, 50.6; December, 43.2; average, 60.8. Southern Arkansas and Northern Texas, for 18 years, January, 46.4; February, 42.1; March, 58.6; April, 67.4; May, 74.0; June, 81.0; July, 83.0; August, 82.0; September, 76.0; October, 66.4; November, 55.9; December, 50.2; average, 66.2. At Galveston and Houston, Tex., for 18 years, January, 53.2; February, 57.7; March, 62.8; April, 70.2; May, 76.1; June, 82.4; August, 83.4; September, 79.2; October, 72.6; November, 62.6; December, 56.0; average for the year, 70.0.

The average annual and monthly temperatures at Lake Charles, La., for the past twelve years, as given by the U. S. weather bureau, are as follows: January, 51.9 degrees; February, 53.9; March, 59.6; April, 67.4; May, 73.8; June, 79.9; July, 80.9; August, 80.6; September, 77.2; October, 68.7; November, 59.3; December, 53.5; annual average, 67.2. It will be noted that while the winter temperatures in Louisiana seldom fall below freezing point, the summer temperature compare well with those of more northerly latitudes. The number of warm days is greater, that is to say, the summer is longer in days, though the heat of the days is not appreciably greater. From March to November, a period of nine months, there is a steady breeze from Gulf of Mexico northward, carrying coolness and comfort during the summer season. Occasionally, owing to weather disturbances elsewhere, northerly winds prevail for a few days at a time, and it is with these that the hottest and most oppressive weather is experienced. The highest temperature in 1903 was 96 degrees for one day, and in 1902, 101 degrees for one day, temperature not uncommon as far north as Chicago and Minneapolis. As to the temperature, it is a safe statement to make that the mid-summer temperature is not higher, or nearly so oppressive in Southern Louisiana and Texas, as it is in Central Missouri, Illinois or on the plains of Kansas and Nebraska, and as a matter of fact is far more agreeable. The winters, however, are very mild and agreeable compared with those north of Missouri.

There are occasional sharp frosts on the Gulf Coast, but these come at long intervals, seldom last over twenty-four hours, and ice and snow are rarely seen.

In the seventy odd years in which this country has been occupied by white settlers there has never been a complete failure of crops. There have been years when the rainfall was too abundant to mature fruit crop perfectly, but in such years the field crops were exceptionally large and good, and in other years the general field crops yielded smaller returns by reason of scant rainfall, but an enormous and extra fine fruit crop was produced.

The periods of maximum and minimum production in agricultural lines seem to run in cycles of about 7 or 8 years, and seem to stand in some relation to the presence or absence of spots on the sun. The profitable crop bearing area of the United States seems to expand or contract with the appearance or disappearance of these spots. It has been observed that the "wet" years occur when the sunspots are most abundant, and the "dry" years when they are absent. They seem to make their appearance and disappearance within a period of eight years and, according to some observers, within a period of ten years. This would mean that during a sun-spot year the localities commonly known as the "rain belt," altitude less than 1,500 feet, receive an excess of rainfall, accompanied by late spring frosts and early frosts in autumn, while the ordinarily arid and semi-arid regions, altitude 1,500 to 5,000 feet, receive for the time sufficient rainfall to mature crops of some kind. The "rain belt" has a heavy snow fall, and the winter lasts longer and is colder than ordinary. The arid and semi-arid regions have severe cold north winds, with an occasional light snow fall, which in other years are absent. In the "dry" years, during the absence of sun-spots, the yield of the field crops is more or less reduced in the "rain belt" owing to a smaller precipitation, and in the arid regions crops fail entirely unless irrigation can be applied. These are the years of the hot summers, which spring opens up early, and is followed in the fall by the "Indian summer," the most delightful part of the year. This is the year of the big fruit crops and a short, mild winter. As long as there are spots on the sun, and these appear and disappear periodically, these changes in the rainfall will take place, and it behoves one seeking a new location to see to it that there is rainfall enough for all agricultural purposes. It takes two thousand pounds of water, which must be evaporated through the leaves of the plants, to produce two

pounds of straw and one pound of grain, and the water must be there if the grain is to be produced. The "rain belt" has not and does not move west, except as indicated above. Had there been a regular sufficient annual rainfall on the western plains, they would have been covered with a forest grove extending from the Missouri River to beyond the Rocky Mountains. A country having an abundant forest growth and the greatest variety of indigenous plants, and grasses is always one of abundant rainfall. Where the trees are absent and the native grasses are confined to a very few varieties, it is a very good evidence that the rainfall in a series of years is insufficient and that prospective crop failures must be reckoned with.

The rainfall in the country along the Kansas City Southern Railway has been as follows: Kansas City, Mo., for 18 years: January, inches, 1.10; February, 1.60; March, 2.28; April, 3.41; May, 4.13; June, 5.45; July, 3.85; August, 3.58; September, 3.86; October, 3.41; November, 1.92; December, 1.53; total annual rainfall, 36.12 inches. Southwest Missouri, for 18 years: January, 1.56; February, 3.29; March, 3.32; April, 4.22; May, 6.39; June, 5.60; July, 4.49; August, 4.51; September, 3.61; October, 3.35; November, 3.74; December, 2.49; total, 46.57. Fort Smith and adjacent country for 11 years: January, 2.50 inches; February, 3.90; March, 3.00; April, 5.00; May, 4.10; June, 4.20; July, 4.00; August, 3.60; September, 3.60; October, 2.80; November, 4.00; December, 2.80; total, 44.70. South Arkansas and North Texas for 16 years: January, 4.86 inches; February, 4.78; March, 4.59; April, 5.75; May, 4.55; June, 3.52; July, 4.03; August, 2.18; September, 4.10; October, 3.64; November, 4.78; December, 5.18; total, 52.26. Galveston and Houston, Tex., for 20 years: January, inches, 4.10; February, 3.00; March, 3.10; April, 3.00; May, 4.10; June, 4.90; July, 3.00; August, 5.40; September, 7.10; October, 4.80; November, 4.70; December, 4.40; total for the year, 51.60.

As to the public health of the country, it is hardly necessary to say more than that it is exceptionally good. Southwestern Missouri is an old well-settled prairie country dotted with cities and towns, around which are clustered lead, zinc and coal mines, great stock farms, grain farms, hundreds of fine orchards and truck farms. Western Arkansas and the Indian Territory are delightful mountainous country, all above 1,000 feet in altitude, and affording the purest potable waters found anywhere in the United States. It is a region of thrifty towns and villages, sustained by general farming operations and an enormous fruit growing

industry. It is full of health and pleasure resorts and visited by thousands every year. Northern Texas and the Louisiana hill country, covered originally with a magnificent growth of pine timber, much of which is still standing, are noted for their healthfulness, and the cities of Texarkana, Texas, and Shreveport, La., have a much smaller death rate per thousand than any of the northern cities. There are no stagnant waters in the hill lands of either Texas or Louisiana and no local causes for disease.

Along some of the river bottoms, subject to overflow, mild cases of fever and ague do sometimes occur, but these yield readily to treatment. The breaking of new ground in large area will sometimes induce attacks of malaria, which is not considered a serious ailment and is not found on the older farms at all. The death rate in Beaumont, Texas, and Lake Charles is from 11 to 14 per thousand of population, and much less than that outside of the larger cities.

## Commercial Truck Farming on the K. C. S. Railway

There is a great advantage in living on a north and south line of railroad, when it comes to the production of fruits and vegetables. It is not generally known that the maturity of the crop is retarded one full day for every twenty miles proceeding northward, provided the country rises gradually from south to north. If there be any great altitudes intervening the higher elevations of course will mature their crops more slowly than the low lands in the same vicinity. This being the fact, none of the fruit and truck growing localities along such a railway compete with each other in the market. Each has its day in the markets, and the produce is shipped in regular procession. On an east and west line the crop would mature practically at the same time at all stations, and would have to be marketed at the same time, with the result that the market would be bare at times and glutted at others. While there is generally a good home market for the larger part of the production, there is also a period when other markets are bare, and a very good price is paid for the surplus. If the truck grower lives North, his surplus can be consumed in the South, late in fall; if he lives far South, the Northern cities will take his surplus early in spring. Generally the money obtained from the product shipped away exceeds in value per acre that which is sold at home. Now, a short direct railroad line capable of promptly delivering perishable freight at commercial points in either direction, in good order, is absolutely essential to one who desires a profit from growing truck and small fruits, and we inform you confidentially that the fruit and truck trains of the Kansas City Southern Railway deliver the goods on time and in good order.

The profit to be derived from commercial truck gardening depends greatly upon

the location of the garden. The time of maturity of the crop and the delivery are the essential points, as the price of the commodity varies with the season.

The coast country is the early producer, and its products reach the Northern markets earlier than any other section of the United States. Farms cultivated intensely, if properly situated, yield greater financial results on a minimum outlay of capital than any other mode of farming. One thousand dollars carefully applied in truck farming in the coast country will yield more revenue than \$5,000 in a Northern farm.

Beginning at the Gulf Coast there is a regular progression in the maturity of the crops going northward. Celery is ready for the market at about the time the Northern crop is exhausted.

The Irish potato is ready for the market on the Gulf Coast from March 20th to May 10th, and it is unnecessary to say that new potatoes bring fancy prices. The crop of early potatoes varies from 100 to 150 bushels to the acre, and the price at shipping point from 70 cents to \$1.50 per bushel, the latter price being paid for the earliest production. The potato movement is large every year, and will average, one year with another, about 2,000 car loads. The earliest arrivals in Kansas City come from the Gulf Coast in March and April; during May they come from Northwest Louisiana, in June from Southern Arkansas and Oklahoma, near Fort Smith, and July and August, Northern Arkansas and Southern Missouri. The famous Kaw Valley crop near Kansas City comes in late in August and September. A second crop is grown at nearly all stations from Fort Smith southward.

Tomatoes, near the Gulf Coast, ripen about May 20th, and find a quick sale. Peanuts are generally grown as a second crop,



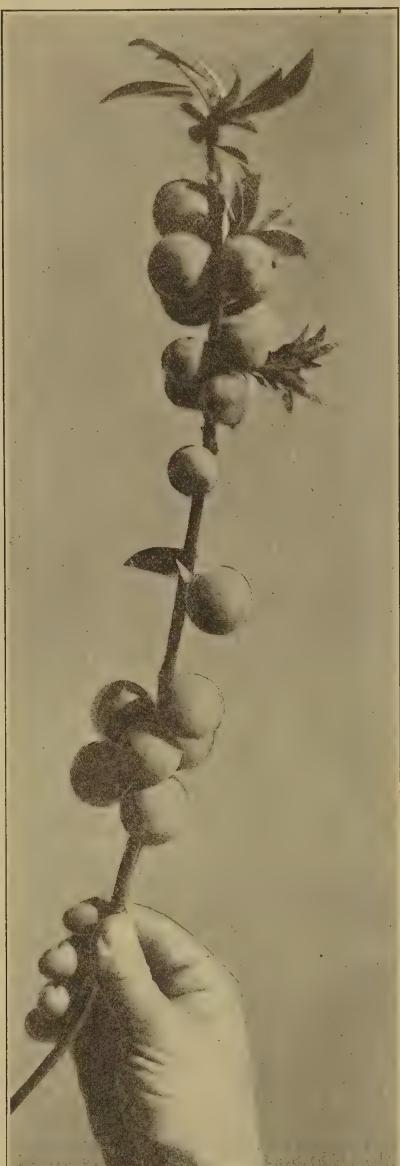
Snap Beans, May 6, Pickering, La.

yield about 100 bushels, and are worth from two to six cents a pound. The large peanut factories in Shreveport and Texarkana consume very large quantities. The melon and cantaloupe crop is generally very profitable. Shipments in carload lots are made from Neosho, Anderson, Goodman and Langan, Mo., Decatur, Fort Smith and Gravette, Ark., Poteau, Gans, Spiro and Sallisaw, Okla., Mena, Cove, Granniss, Horatio and DeQueen, Ark., and from Lake Charles, Mansfield and Shreveport, La. Lake Charles alone will handle over 100 acres in cantaloupes for 1911 crop. Sweet potatoes yield from 150 to 400 bushels per acre, and sell from 50 cents to \$1 per bushel. The vines of the peanut and sweet potato, properly cured, make an excellent hay. The minimum yield of an acre of cabbage should be 10,000 pounds, and crops of 20,000 and 30,000 pounds are among the possibilities. An acre, with a crop of 10,000 pounds, should net \$120 after deducting freight charges and crates. An early crop shipped northward should bring from two to four cents a pound. The later crops bring less until late in the fall, when the same price is paid in Texas and Louisiana. During the winter

months large quantities of sauer kraut are consumed in the South. The early onions go North, the late crops South. The Prize Taker, Yellow Danvers, Globe and Red Wethersfield are commonly grown over a wide area, but in Southern Texas the Silver Skin, Bermuda, etc., are extensively grown. Ten thousand pounds to the acre is not an uncommon yield, and the income varies from \$50 per acre to \$200, according to variety grown and time of maturity.

The gross returns obtained per acre from the spring crops according to the reports from various truck growers range as follows: Tomatoes, \$200 to \$300; snap beans, \$100; sweet potatoes, \$150; Irish potatoes, \$100 to \$150; onions, \$100 to \$250; strawberries, \$150 to \$300; peas, \$100; radishes, \$150; spring turnips, 100; cauliflower, \$400; cabbage, \$300; peaches, \$150; pears, in full bearing, from \$150 to \$300. The cabbage, cauliflower and asparagus yield splendidly along the coast as the salt atmosphere appears to promote their growth.

It should not be forgotten that there are large canneries at Neosho, Mo., at Gravette, Decatur, Gentry, Siloam Springs, Mena, Granniss, De Queen, Ark.; Texarkana, Tex.;



Green Gage Plums, May 6, Pickering, La.

The Granniss Plantation at the Pickering Colony, has about 100 acres in peaches, plums, grapes, figs, oranges, berries and extra early truck. Strawberries mature early in April, potatoes in May, plums, etc. early in June; figs in July oranges in October.

Shreveport, Bon Ami and Lake Charles, La., and that these are desirous at all times to contract in advance for their necessary supplies of fruit, berries and vegetables.

An average truck farm will contain about forty acres, of which ten or fifteen acres are actually devoted to the cultivation of truck. The remainder is generally utilized as orchard, pasture and the production of forage or standard field crops. Many of the truck farms are much smaller and some of the largest contain from 75 to 100 acres. A ten-acre tract properly located, well cultivated and skillfully operated, will often produce \$2,000 worth of truck in a season.

It must be borne in mind, by those desiring to engage in either fruit culture, truck farming or both, that these crops are produced under a system of intense farming; that a comparatively small acreage is usually sufficient for a profitable income, but that while a modicum of actual money is invested, as much or more physical labor must be bestowed on a small area to make the dollars come, as on a larger area devoted to general field crops. The acreage is small; no complicated or very expensive machinery is necessary and the crop is almost entirely the direct result of well applied manual labor. A vegetable crop is quickly grown and some money comes in continually. A well populated poultry yard is always a very valuable adjunct to a commercial truck garden.

In the commercial garden it is of the utmost importance to always have something growing in it. The long season in Southern Arkansas, Texas and Louisiana makes this practicable. The Southern truckman's farm should never be idle. If he starts with early Irish potatoes, ready for the market about the end of April or May and June, sweet potatoes can be planted as soon as they are dug and a catch crop of spinach or mustard greens can follow in the fall; or he can sow onions in hotbeds in December, transplant them early in March and have tomato plants to set between the rows long before the onions are maturing, or English peas and snap beans can be followed by egg plants, lettuce by cabbage and these by turnips. The nearer he is to the Gulf Coast, the greater is his range of production. There are a dozen or more other crops that can be profitably grown, but the date of planting and the order in which they are produced depends upon the locality selected for the truck farm. In some years there may be a few weeks in midsummer where a new crop could not be started by reason of extra dry weather, but the trucker who is wise generally has a good well and often a small

gasoline engine and pump which will provide all the irrigation needed to start his crop. Berry growers have observed that in a dry season a single watering of the berries will quadruple the size of the berry, make four quarts of one and more than double the price.

In the production of tree fruits there is a waiting period of three or four years for returns. This interregnum should be utilized by planting berries and commercial truck. When the trees come into bearing it is important to so time the truck as to have some of it in with the fruit. Early varieties of peaches will come in along with an early crop of tomatoes and can be shipped in the same car, at the same time, and be handled by the same buyer with equal safety, thus securing carload shipments, lower freight rates and a greater profit.

On the line of the Kansas City Southern Railway there is a large number of horticultural and truck growing societies. Prac-

tical experience has demonstrated that truck and fruit must be grown in commercial quantity to yield the best financial results and the co-operation of all the truck producers is necessary to attain this end. The ability to ship in carload lots assures low freight rates and brings the buyer to the place of production, where the buying and selling takes place. The K. C. S. Railway offers peculiar advantages to the fruit man and truck grower in that it has along its line the country best suited for his purposes. It has splendid markets at both ends of the line and provides a ready sale for the spring crops of the Gulf Coast as well as for the fall crops of Missouri.

Those desiring to engage in commercial truck and fruit growing should always consider the fact that co-operation is absolutely necessary and that isolation means failure. Commercial quantity must be produced. Few individuals can do this, but an association does it and brings the buyer to the place of production where the goods are paid for before shipment.



Strawberries, May 12, Sulphur Springs, Ark.

## Southwest Missouri

Southwest Missouri practically includes the whole southwest quarter of the state and embraces nearly all the prairie country, most of the richest mineral lands and the best fruit lands in the state. A large part of it is in the Ozark Mountain region, but along the Kansas City Southern Railway the prairie country predominates, except in McDonald County which was originally heavily timbered. The railway traverses the counties of Jackson, Cass, Bates, Vernon, Barton, Jasper, Newton and McDonald in Missouri and is less than ten miles from the Counties of Leavenworth, Johnson, Miami, Linn, Bourbon, Crawford, Cherokee in Kansas and Ottawa and Delaware in Oklahoma, all of which are reached by connecting lines of railway.

With the exception of McDonald County, Mo., all the counties mentioned have a gently rolling or undulating surface, with open prairie as the prevailing feature, though good hardwood timber is found at all the water courses. The soils generally are dark sandy loams underlaid with limestone and are highly fertile. They are exceptionally well suited for grain, forage, and the raising of live stock of all descriptions.

This part of Missouri has been settled some seventy or eighty years and in its general characteristics resembles the farming country of Illinois, Indiana, Kansas or Iowa. It has numerous small prosperous towns and several larger cities, connected by railways and good country roads and has all the commercial advantages and social comforts incident to an old settled section in the Middle States. Good roads, numerous public schools and high schools, churches, fine local markets, splendid transportation facilities and close proximity to the larger cities afford every essential comfort that can be desired. The country is healthful, the climate agreeable all the year around, the altitude 800 to 1000 feet and the rainfall is about forty inches, one year with another and is well distributed.

Jackson County, in which Kansas City is situated, is the second in point of population in the state. It is densely settled, rolling prairie, with timber along the streams. Nearly all improved except a few small areas of broken land. The area is 586 square miles. It produces annually about 5,000,000 bushels of corn and 750,000 bushels of wheat and the annual production of horses, mules, cattle and hogs is valued at \$3,500,000.

Cass County, immediately south of Jackson County has an area of 712 square miles and has more land in cultivation. The crops, wheat, corn, oats, barley, flax, millet, clover, forage and hay are the same as in Jackson County with a greater production of corn, hogs and cattle. Dairying is carried

on extensively. The corn and live stock shipments from this county will average about \$1,000 per farm. The surface of the county generally is smooth and the soil a dark loam running into clay in places. The timber growth is found along the streams. There are twenty-six towns and villages in the county, of which Cleveland, Drexel, Jaudon, Lisle and Westline are stations on the Kansas City Southern Railway. Six railways traverse the county, which has 5554 farms and 129 school houses. Coal is mined near the center of the county and good brick clays are found everywhere.

Bates County is fifty miles south of Kansas City, Mo., and the surface is smooth rolling prairie, with a good growth of oak, walnut, ash, elm, hickory, etc., along the streams. The area is 874 miles and the average altitude about 900 feet. This is a magnificent grain and stock raising county, shipping annually livestock valued at about four million dollars. The prevailing soils are heavy black loams, underlaid with limestone and producing from 40 to 75 bushels of corn or 15 to 30 bushels of wheat per acre and the fruit, truck and poultry production is very large. The county is well drained by the Osage river and its tributaries and the Marais des Cygnes river. The greater part of Bates County is underlaid with coal and it has been estimated that there are six and one-half billion of tons in the county. In the vicinity of Rich Hill, in the southern part of the county there are thirty producing coal mines and other mines are operated at Foster and Worland. Oil and gas have been found at Merwin, Amsterdam, Amoret and other places. Butler is the county seat. The towns along the Kansas City Southern Railway are Amoret, Amsterdam, Hume, Merwin and Worland.

Vernon County, south of Kansas City, Mo., eighty miles, has more fine tillable black land than any of the adjacent counties. The area is 850 square miles and there are 7600 farms and 150 schools in the county. Vernon produces more hay than any other county in the state and the total value of the farm products exceeds \$7,000,000; that of live stock \$2,500,000. Creameries and dairies are numerous and very large shipments are made of fruit, stock and poultry products. Coal and valuable clays are very abundant and lead and zinc are found in numerous places. Coal mining is carried on in several places. Of the twenty-four towns and villages in the county, Amos, Eve, Richards, Stotesbury and Swarts are stations on the Kansas City Southern Railway.

Barton County has an area of 590 square miles and is about 120 miles south of Kansas City, Mo. The surface is gently rolling or

undulating, drains well and does not wash. The soil is a rich, dark, sandy loam and produces abundantly every crop grown in the adjacent counties. Grain production, stock raising, dairying, poultry raising, fruit and truck growing are the important industries. Nearly every acre in the county is capable of profitable tillage. It has numerous prosperous towns and has a permanent school fund yielding \$124,000 per year. Spring River is the principal stream traversing the county and along its banks there is considerable valuable hardwood timber. The greater part of the county is underlaid with good bituminous coal, which is mined more or less extensively at Oskaloosa, Mulberry and other places, the annual output being between 250,000 and 300,000 tons. Clays and shale of superior quality in close proximity to coal, oil and gas fuel are very abundant at Oskaloosa, Mo., and a very large brick, tile and clay working plant is in operation at that point. Lamar is the county seat. The towns on the Kansas City Southern Railway are Oskaloosa, Ardath and Mulberry.

Jasper County, rich as it is in agricultural resources, is more famous for its mineral output of lead and zinc, which during the last five years has run in value from \$13,918,517 to \$15,419,801 in 1907 and \$14,262,204 in 1910. The agricultural interest is however very large and as there is a mining population of about 100,000 in the immediate vicinity, it enjoys a splendid home market. A record is kept only of those products which are transported and not consumed at home, constituting only a very small part of the whole production. The value of livestock shipped in 1909 was \$1,973,310; of poultry products \$802,788; of grain \$714,162; of vegetables \$55,317; of fruit \$242,604; of dairy products \$431,155, other miscellaneous agricultural products \$113,044, a total of \$4,272,380, which was probably one sixth of the entire production. Corn, wheat and livestock are the agricultural staples, though there is an enormous production of fruit, berries and truck necessary to supply the dense population. The area of the County is 672 square miles and the altitude above sealevel is 1000 feet. Carthage is the County seat, but Joplin, population about 32,073 is the largest city and is the financial center for the entire lead and zinc mining industry. The railway mileage in the county is 165 miles and there are 340 miles of telegraph lines. The towns on the Kansas City Southern Railway are Asbury, Gulfton and Joplin.

Newton County is about 160 miles south of Kansas City, and has an area of 629 square miles. About one-third of the county is more or less hilly, the remainder being comparatively smooth, level lands lying between the more undulating areas. The general slope of the surface is to the west and in the southern portion to the south. The county is exceptionally well watered, having numerous fine streams and

very large springs. The soils are more varied than in the counties north and farming operations are more diversified. The county produces grain, livestock, fruits, berries, poultry and eggs to the value of \$3,000,000 to \$3,500,000 annually and is particularly noted for its fine berry crops, apples and peaches. The average elevation above sea-level is 1100 feet. The mineral resources of the county consist of lead and zinc of which a million dollars worth of ore is mined annually, of tripoli beds which are mined and manufactured, the annual product being about three and one-half million pounds. There are fourteen mills and elevators in the county which turn out annually flour, cornmeal and other mill products to the value of \$1,000,000. The shipments for Newton County consist of cattle, horses, mules, hogs, mill products, flax seed, hay, hardwood lumber, lead and zinc, tripoli, dairy products, apples, peaches and strawberries, of the latter about 225 car loads per annum. Neosho, population about 4000, is the county seat. The principal towns in the county are Neosho, McElhaney, Saginaw and Tipton Ford on the Kansas City Southern Railway and Granby, Seneca, Newtonia, Wentworth, Spurgeon, Racine, Spring City, Diamond and Stella.

McDonald County forms the southwest corner of the State of Missouri. It is more hilly than any of the previously described counties, but about one-third is excellent level farm land, the remainder being hilly wood land, splendidly adapted to stock raising and fruit growing. Wheat, corn, oats, hay, livestock, poultry and eggs are produced in large quantity and are profitable but fruit and berry growing are important sources of income. Immense orchards in apples and peaches and several thousand acres of berries are located at Goodman, Anderson, Lanagan and Noel and great quantities of poultry and eggs are annually produced. It is a country of small farms and is rapidly growing. The area of the county is 523 square miles and the average altitude about 900 feet above the sea level. The finest fishing streams in the state are located in this county and several thousand people have their annual outings here during the summer months. Pineville is the county seat. The railway stations are Anderson, Goodman, Lanagan, Elk Springs and Noel.

Crawford County, Kansas. In its course southward and before reaching Joplin, Missouri, the Kansas City Southern Railway enters the State of Kansas in Crawford County in order to reach the city of Pittsburg. This county, in its general characteristics, closely resembles Barton County, Missouri, and adjoins it on the east. The surface is gently undulating prairie land usually black in color and highly fertile and probably seven-eights of the area is under cultivation. Corn, wheat, barley, oats and fruits are extensively grown and with dairy products, poultry and fine live-

stock constitutes a very large source of income. There are more than one hundred coal mines in the eastern half of the county sustaining a large mining population. The annual coal output is between 6,500,000 and 7,000,000 tons, worth about \$10,000,000, sometimes more and sometimes less. Being a great industrial county there is a splendid home market for everything that can be produced on the farm and very little, except livestock is transported elsewhere. Zinc smelting, coal mining, brick, tile and sewer pipe manufacture are the principal industries

though many other lines of industry are well represented. The population of the county is 51,178; the altitude above sea-level 945 feet. There are twenty-three towns and villages and numerous coal camps in the county, Girard being the county seat. Pittsburg, population 17,000, is the largest city, and the financial and commercial center of the coal mining industry. The stations on the Kansas City Southern Railway are Fuller, Curranville, Nelson, Frontenac, Pittsburg and Knivetton.

## The Effect of Climate on Land Values

### Editor Current Events:

I wish to address through your columns, the people who may be interested in farming lands, either for an immediate new home, or who are making such plans for some future time.

My desire is to call their attention to the exceptional opportunity that is now presented in the South. There are many reasons for them to consider this territory in preference to any other in the United States. There may be other sections that appeal to them, but none that can hold out better inducements.

Along the line of the Kansas City Southern Railway, running as it does from about the center of the United States, to the shores of the great Gulf of Mexico, are to be found lands adapted to every variety of crop grown in this nation. Not all in any one spot, but more nearly so than is found elsewhere.

To enumerate and classify would be impossible in a short article, and the especial features of each county and parish are treated in various pamphlets issued by the Immigration Department, to be had for the asking.

I wish to say a few words about climate, and please don't skip this, as it is the most important element in the permanency of any country.

Climate, fixed, staid, dependable climate, has more effect in establishing the value of land than any other agency, as we measure from the standpoint of productiveness.

You can change and even make soil, but you cannot alter the climate. You must take the weather as it comes, and you buy the climate with the land.

Climate determines the possibility and degree of productiveness of the land. What then is the influence of climate on the value of land if productiveness fixes values?

On lands in the North, farmers, if lucky, make one crop a year. They did not get the right kind of climate with their land. Their climate limits production to five or six months in the year. The climate that

goes with the lands in Western Louisiana is such as to make production possible every month of the twelve. Instead of one scant crop with which the northern farmer must be satisfied, Louisiana turns out two to four crops each year, and they are crops that yield a per acre profit many times greater than those that are adapted to the whimsical weather of the North.

You cannot get away from the fact that when a man buys land, he buys more than dirt—he buys climate. At least he gets it, and has to take it whether it suits or not.

This is the reason why the Louisiana lands are attracting the attention of the one-crop farmer. He does not have to work all the time if he does not want to, but he can if he wishes, and make his crops come in at most any and all times of the year. The same amount of labor will produce more profit than on any northern farm and he can then keep on working for more results. You know about alfalfa, for instance. You can cut it in the North three or four times. In Louisiana they cut it six to eight times. More work, and also more hay and more profit. Two crops of corn may be raised on the same land and frequently it is done, but more often, corn or cotton are planted in April, following the digging of the potatoes that were planted in December and January. I stated that sometimes four crops are grown on the same land in a year. Here is a sample, as grown in Southwestern Louisiana: Beans and beets planted October 1st are harvested February 1st. Potatoes are planted January 1st between the rows of beans or beets, and harvested about the 10th of April. Cotton or corn is then planted and harvested about September 1st. Cowpeas are planted Sept. 15 and harvested December 15, the beans or beets being planted in ground before cowpeas are cut. This all forms a rotation of crops that enriches the soil. Soil does not need rest, but food. Now, this would not be possible if the climate was not right. We do not mean that the weather is hot all the time. Indeed the climate is one of the most attractive features of this section.

It is a moderately warm temperate zone. The killing heat of the northern latitudes is not there. Sunstroke never occurs. There are more warm days than in the North, but few, if any of the days are as hot as those of a northern summer. The winters are never severe, the mercury seldom reaching freezing point, and never remaining there long when it does. The ground never freezes, and field work can be done all winter. Cattle are wintered on grass and need no shelter. Bright sunshine prevails for 300 days in the year, but each month has its full share of rainfall, which totals 40 to 60 inches. The prevailing Gulf breeze tempers both the summer and winter season. In Northwest Louisiana three crops are easy. Plant Irish potatoes February 15; harvest May 1st. Then by May 10 plant peanuts and harvest August 15. Then plant seed saved from spring crop of potatoes and grow another crop. This will give three money crops in one season from same ground. Not gardening, but three crops grown under farm conditions. Each crop should net \$50 per acre.

You can plant corn in March and grow from 25 to 80 bushels per acre, and besides, you can grow a crop of cowpeas between the corn rows, worth \$25 to \$35 per acre for the peas alone and have a valuable forage crop for stock feed from the vines. You can harvest both crops in time to sow winter oats or rye and provide green pasture during the winter, and a spring crop

of grain. Or you may sow crimson clover for the winter pasture and make from two to three tons of good hay in the early spring. There are several crops that can be grown in combination and rotation that will give three farm crops each year from the same land. Either one of the three crops will bring more money here than the same crop is worth in the North and that explains why southern farmers get into the habit of taking life so easy. They do not have to fight so hard for a living as do their northern brothers. It is climate that makes such crops possible.

The Ozark region of Western Arkansas and Southwest Missouri is famed for its fine fruits. Its climate makes it possible to raise and market at a time when such fruits are not obtainable elsewhere. Its climate makes it a most desirable place in which to live. Pleasant and enjoyable winter and summer.

I earnestly request our farmer friends of the north, who are looking for new homes, to visit the K. C. S. country. They owe it to themselves to get informed as to the place best suited to their particular liking. If they will do this, I have no fear of the results.

Sincerely,  
WM. NICHOLSON,  
Immigration Agent,  
K. C. S. Ry.

105 Thayer Bldg.,  
Kansas City, Mo.

## West Louisiana and East Texas

West Louisiana and east Texas have so much in common in the matter of soil, climate, timber growth and general resemblance that a topographical description of one would easily suffice for both. From Texarkana, Ark.-Tex. south to Lake Charles, La., and Port Arthur, Texas, the Kansas City Southern Railway passes through Caddo, De Soto, Sabine, Vernon and Calcasieu parishes in Louisiana, and Bowie, Cass, Jefferson and Orange counties in Texas, a timbered strip of country 298 miles in length, entirely free, with the exception of the Gulf Coast marshes, of swamps or stagnant waters and as healthful as any other part of the United States. The total area of the counties and parishes mentioned is 9990 square miles. The most northerly of these counties and parishes have altitudes varying from 350 to 450 feet, tapering off into lower altitudes near the Gulf Coast. With the exception of the east third of Calcasieu parish and one-half of Jefferson and Orange counties the entire area was originally heavily timbered. The timber growth consists of long and short leaf yellow pine, much of which has been manufactured into lumber, and several kinds of oak on the up-

lands and a more or less dense growth of water oak, pin oak, white oak, beech, hickory, pecan, ash, cypress, walnut, gum etc. along the water courses.

Sabine river forms the west boundary of DeSoto, Sabine, Vernon and Calcasieu parishes, Louisiana, and the east boundary of Orange county, Texas, while the Neches river drains parts of Jefferson and Orange counties. Red river forms the east boundary of Caddo and DeSoto parishes, while Calcasieu river flows through the center of Calcasieu parish. All these rivers have broad valleys of exceptional fertility and where cultivated produce enormous crops per acre. Along Red river the country has been settled for eighty to one hundred years and further south from seventy to eighty years, though the population was sparse until the railway was built. The river bottoms or valley lands readily produce under good cultivation from sixty to seventy-five bushels of corn, from one to two bales of cotton and from five to seven tons of alfalfa and are very prolific in the yield of sugar cane, potatoes, forage plants, peanuts and truck crops of every description. The soils on the Red river bottoms are

a reddish dark sand loam, those of the Sabine, Neches and Calcasieu rivers are heavy black alluvials and in places black sandy loams. The cotton production on these lands is enormous, particularly along Red river and in a good cotton year 300, 000 bales, valued at \$18,000,000 or more are handled in Shreveport, La.

Away from the larger streams the land is gently rolling consisting of broad shallow valleys and numerous small creek bottoms separated by low smooth ridges. These uplands present a variety of soils, the extremes of fertility being areas of light sandy loams and the heavy black bottom lands along the numerous water courses. The predominating soils are the grey and dark sandy loams ("Norfolk Loams") and the chocolate dark sandy and red lands known as the ("Orangeburg Loams"). The soils, while not so prolific in yield as the river bottom lands, produce all the standard field crops of Louisiana and Texas and are famous as commercial orchard, truck, berry, potato and tobacco lands. They respond readily to good cultivation, and with crop rotation and the use of cowpeas and other legumes, acting as fertilizers, yield splendid results. The annual production of fruits and truck, marketed in the northern cities, and grown in East Texas and West Louisiana amounts to about 10,000 to 12,000 carloads.

The coastal prairies, which extend from the forest area to the shore line of the Gulf of Mexico and have a width of thirty to sixty miles are generally smooth and have a gentle dip toward tidewater. Along the streams is more or less timber consisting of oak, mulberry, pecan, ash, elm, magnolia, cottonwood and sycamore. At intervals these prairies are traversed by low ridges frequently a mile in width, which are usually covered with a rich, dark, sometimes deep black, loam of great fertility, well suited for general farming, for semi-tropical fruits and the production of extra early commercial truck. The level areas between the ridges are considered best adapted for rice cultivation and are largely put to that use, though they are also capable of profitably producing other crops. About 300,000 acres are devoted to the rice crop, and the production in Jefferson county is about 500,000 barrels of rough rice valued at \$1,500,000 to \$1,750,000. The crop grown by 1000 farmers in Calcasieu parish, Louisiana, is valued at \$2,400,000.

Along the streams draining the prairie country, are found red or chocolate alluvial soils, capable of producing abundantly all the standard field crops, commercial truck and fine fruits. In places along the shoreline of the Gulf are areas of marshlands, which are now being drained and placed in cultivation. These reclaimed marsh lands are among the most fertile lands in the United States.

The general farmer, stockraiser, fruit and truck raiser cannot go amiss in either West Louisiana or East Texas. The soils are as

fertile as anywhere else. The range of production is greater than in any other state and the grower is in position to adjust his crops to the needs of the market, producing that which is needed and cutting out that of which there is an excess. His market need never be overstocked. To the stockraisers the climate makes possible longer grazing than elsewhere and also permits the largest production of forage at the smallest cost. The fruit and truck growers are among the first in the northern markets, and have little to complain about in the matter of prices. After the early spring crop has been marketed, the home market must be supplied, and as a large part of the population is industrial, this market is a very good one. The money obtained per acre in Louisiana, according to the U. S. census, is higher than in any other state in the Union.

The industrial resources of this region are varied and some of them are capable of indefinite development. There is no section of the world more fortunately situated for the production of cotton than is Louisiana. It can be produced at a nominal cost. There is room for a large cotton manufacturing industry. Less cotton should be sent to the east and more manufactured at home. Fuel, coal, oil and gas are cheap and abundant and the railway facilities are excellent. The best Cuban leaf tobacco can be produced in Louisiana and East Texas and a large tobacco manufacturing industry could be established to advantage. Iron ores in great quantity are found in Cass, Marion and other counties along Sabine River in Texas and occur in smaller quantity in West Louisiana. Fine clays and shale for brick, sewer pipe, and pottery work, and valuable glass sands are found in several counties, the glass sands being most abundant in Cass and Jefferson counties, Texas, and Caddo parish, La. Lignite of good quality is very abundant in DeSoto parish and is found in many other places. Gas has been developed in enormous quantity in Caddo Parish and is used for lighting the cities of Texarkana, Shreveport and a number of other places. Oil has been developed in vast quantities near Beaumont, Tex. in Calcasieu Parish, La., near Vinton and in Caddo parish near Oil City, Moorsport, Vivian, Lewis, etc., and in Beaumont and Port Arthur, Texas, the greatest oil refineries in the world are maintained. Oil is being bored for at numerous places and new oil supplies are likely to be found at any time. The greatest sulphur deposits in the world are being mined in Calcasieu Parish and many hundred thousand tons are annually marketed. Other workable deposits are known to exist. Salt deposits of great magnitude have been found in Calcasieu parish and it is claimed that beds of asphalt exist there also.

The manufacture of lumber is at present the most important industry in this section of country and to it is due the building of a number of flourishing towns. There are

about one hundred saw mills, planing mills, stave mills, shingle mills and other wood working establishments along the Kansas City Southern Railway, employing from 25 to 1500 people each. Yellow pine lumber is the principal output and this amounts annually to from 40,000 to 50,000 car loads.

The principal cities and towns in this region are Shreveport, La., Mansfield, La., Leesville, La., DeRidder, La., Many, La., Beaumont, Tex., Lake Charles, La., Port Arthur, Tex. The towns of Vivian, Mooringsport, Oil City, Vinton, La., and the cities

of Beaumont and Port Arthur, Texas, are important oil shipping points. Lumber in large quantities is shipped from Mansfield, Kingston, Converse, Noble, Zwolle, Loring, Many, Fisher, Florien, Barham, Leesville, DeRidder, Pickering, Neame, Cravens, Ludington, Bon Ami, Carson, Newlin, Singer, Juanita, Lake Charles, Louisiana; Ruliff, Lemonville, Vidor, Orange and Beaumont, Tex. Rice shipments in large quantities are made from Beaumont, Nederland, Orange, Lake Charles and Port Arthur.

## The Industrial Resources of the K. C. S. Country

There is probably no other line of railway in the United States on which there is available for the manufacturer so great a variety of raw material and cheap fuel as there is on the line of the Kansas City Southern Railway. The agricultural and horticultural production along the line will provide ample raw material for flour mills, grist mills, rice mills, sugar mills, syrup factories, fruit and vegetable canneries, vinegar works, pickle works, fruit evaporators, distilleries, cotton gins, cotton seed oil mills, cotton compresses, cotton cloth mills, woolen mills, tanneries, shoe factories, meat and poultry packing houses, creameries, cheese factories, etc. The almost boundless forests will supply the raw material for furniture factories, wagon factories, lumber mills, tie and shingle mills, planing mills, woodenware works, box factories, cooperages, fruit package factories, paper pulp mills, veneer factories, charcoal ovens, etc.; and among the mineral resources are valuable clays for fire and ordinary brick, sewer pipe, tiling, potteries, structural clay products, cement, etc., and vast quantities of building stone, marble and slate yet to be developed. The coal and lead and zinc mining industries, while already enormous in their extent, have not nearly availed themselves of the available supplies. The agricultural, horticultural and live stock production can be increased ten-fold and still leave a comparatively thinly settled country.

### **Timber Resources.**

The forest area along the Kansas City Southern Railway has a length of 450 miles and along this line of railway, there are, large and small, about one hundred and fifty wood working plants. Between Joplin, Mo., and the Arkansas River, the timber in the main, is hardwood of several kinds, white oak and red oak predominating, though there is present also walnut, small quantities of pine, some hickory and ash. The forest product ship-

ments consist of hardwood lumber, logs, walnut logs, wagon timbers, cooperage stock, mine props and posts, railway ties, cord wood, charcoal, etc., and amounts to from 1,500 to 2,500 carloads yearly. Most of the sawmills are small and operate for local consumption and many of them are portable. From the Arkansas River south say to Gillham, Ark., short-leaf yellow pine is the principal commercial timber, though hardwoods of all kinds are abundant. There are large permanent mills in this section and both pine and hardwoods are extensively manufactured. The annual output is from 2,500 to 3,000 carloads, the hardwoods manufactured being about one-sixth of the whole. The timbers between Joplin, Mo., and Gillham, Ark., may be termed upland timbers and it is claimed for them, that while the growth is smaller than in the lowlands, they are close grained, hard and tough and are superior for the manufacture of wagon timbers, furniture stock, hubs, spokes, handles, railroad ties, etc.; while the lowland hardwoods are well adapted to the manufacture of cooperage stock, lumber and large timbers used in construction. The most common varieties found on the uplands are short-leaf yellow pine, white oak, red oak, hickory, walnut, ash, wild cherry, etc. The average stumpage is about 1,500 to 3,000 feet per acre of hardwood and 2,000 to 5,000 feet per acre of short-leaf pine.

The lowland timbers extend from Gillham, Ark., as far south as Beaumont, Tex., a distance of 309 miles. Between Gillham, Ark., and Many, La., the prevailing timber is the short-leaf pine, mixed more or less with hardwoods of various kinds. South of Many, La., and thence to the Gulf Coast prairies the long-leaf yellow pine prevails, and wherever it occurs it is usually in solid bodies of timber, covering from ten thousand to fifty thousand acres in a tract. The hardwoods of the long-leaf pine areas are found almost entirely along the streams and not mixed with the pine. The growth



Charcoal Ovens, Ballard, Oklahoma

of all trees on the lowlands is generally larger than on the uplands and the stumpage per acre is much greater. In Southern Arkansas, the mixed stumpage, hardwoods and pine runs about 3,000 to 4,000 feet per acre and in some localities the pine stumpage will run 2,000 to 5,000 feet per acre; the hardwood stumpage 1,500 to 3,000 feet. In Northern Louisiana, the shortleaf pine stumpage averages about 5,000 feet to the acre and the hardwood stumpage about 2,000 to 3,000 feet to the acre. In the longleaf yellow pine area the pine stumpage runs from 5,000 to 10,000 feet and the hardwoods about 5,000 feet to the acre. South and southeast of Leesville, La., and north of Beaumont and Lake Charles, La., the average stumpage is 10,000 feet of yellow pine and there are many tracts where it will reach 25,000 and 30,000 feet to the acre.

According to a careful investigation made in the fall of 1907, there were then standing in De Soto, Sabine, Vernon, Calcasieu, Rapides and St. Landry parishes in Louisiana, 2,222,796 acres of long and short leaf yellow pine, approximately 19,119,693,000 feet of merchantable pine lumber and 300,601 acres of hardwoods, containing 1,735,103,000 feet of hardwood lumber, or a total of 2,323,397 acres of mixed timber, equivalent to 20,854,796,000 feet of merchantable lumber, which, reduced to carloads would make approximately 1,253,927 carloads of pine lumber and 216,888 carloads of hardwood lumber.

At the close of 1910 there were rendered for taxation in Vernon Parish 522,987 acres of timber land valued at \$7,537,183, and 271,890 acres of cut over land valued at \$271,890. In Calcasieu Parish the tax rendition was 785,000 acres of timber land valued at

\$11,775,000 and 739,000 acres of cut over land valued at \$739,000.

The shipments of forest products (from the lowlands) in the course of a year amounts to between 40,000 and 50,000 carloads and consists of pine lumber and logs (about 35,000 to 40,000 carloads), piling, telegraph poles, shingles, hardwood lumber, walnut logs, hardwood logs, railroad ties (about 2,000 to 3,000 carloads), cooperage stock, wagon timbers, sawdust, turpentine, rosin, etc., etc.

Hardwoods are abundant all along the line from the Missouri state line to the Gulf. They are present in great variety and there is abundant raw material for furniture, paper stock, boxes and crates, wagon timbers, hubs, spokes, handles, cooperage stock, telegraph poles, piling, arms and pins, bridge timber, cedar posts, mining timber, charcoal and cordwood. Lumber, scantling, fruit boxes, shingles, barrel staves and cooperage stock are manufactured in many places. Hardwoods suitable for one purpose or another can be had at almost any station on the line.

Shortleaf yellow pine, which grows usually with hardwoods of various kinds, is manufactured at a large number of places between Fort Smith, Ark., and Many, La. The larger mills, working in this timber, are located at De Queen, Horatio, Cove, Granniss, Hatfield, Gillham, Mena and Winthrop in Arkansas, Texarkana in Texas, and at Benson, Mansfield, Kingston, Converse, Florien, Rodessa, Vivian, Noble and Zwolle, Louisiana. The longleaf yellow pine mills are principally located at Beaumont, Ruliff, Lemonville, Vidor, Mauriceville in Texas, Charles, Leesville, Loring, Neame, Pickering, Ludington, Carson, Bon Ami, Juanita, and at De Ridder, Stables, Fisher, Lake

West Lake and Cravens in Louisiana. Cypress is abundant in some parts of Louisiana, but very little of it is on the Kansas City Southern Railway, except along the Sabine River, near Beaumont, Texas. Cottonwood is abundant along the Arkansas River and along Little River and Red River. Sweet and black gum are found in quantity almost anywhere south of De Queen, Ark.

#### The Coal Mining Industry.

The available coal supply of the country traversed by the Kansas City Southern Railway is found in two distinct regions or fields, where it occurs in commercial quantity and quality, and the deposits are sufficiently continuous to be called coal fields.

The most northerly of these coal fields is the Cherokee-Pittsburg field, of which Pittsburg, Kansas, is the principal shipping and banking point. There are in this coal field from sixty to seventy mining towns and villages, varying in population from 100 to 5,000 and fluctuating in population with the prosperity of the mining industry. When all the mines are in full operation, the population of this coal field is between sixty-five and seventy-five thousand people. All the coals of this field are strictly bituminous.

The Arkansas and Oklahoma coal field extends along the Arkansas River some seventy miles or more east of Fort Smith and a hundred miles west into Oklahoma to a point five miles west of South McAlester. The width of this coal field is from twenty to fifty miles, its greatest width being near the Arkansas-Oklahoma state line. The coals of this field are classed in a general way as semi-anthracite, anthracite and semi-bituminous. In places strictly bituminous and coke coal are also mined.

A third fuel supply available for the use of future generations consists of the brown coals and lignites of Western Kansas, Southern Arkansas, Eastern, Central and Southern Texas and Western Louisiana, and which extend practically from Little Rock, Ark., to Laredo, on the Rio Grande. In quantity they exceed all known coal deposits, but in quality they are not deemed to be good steam coals. As gas coals, owing to the large percentage of volatile matter they contain, they are superior to many of the bituminous steam coals. Properly briquetted they could be used for making steam. As to whether or not they will make a good burden bearing coke there is some question. They are mined to some extent in Texas, in localities where other fuels are scarce, or good steam coal is too expensive, but these deposits are not yet rated as commercial coal propositions. As with the steam coal, there is among these brown coals and lignites a great diversity as to quality, ranging as they do from a woody peat to a good brown coal suitable for many purposes. Large beds of lignites are found at Texarkana, Tex., Ravanna, Ark., Frierson, La., Mansfield, La., Loring,

La., Many, La., Fisher, La., and other places along the K. C. S. Ry.

The Cherokee-Pittsburg coal field embraces in its area the counties of Cass, Bates, Vernon and Barton in Missouri and Bourbon, Crawford, Cherokee and Labette Counties in Kansas. Coal has been mined in this field during the past thirty years and the output during that period has been enormous. The general dip of these beds is toward the south, the coal outcroppings in the Missouri counties being near the surface and largely mined by stripping, while the beds at and near Pittsburg, Kansas, are mined by shafts sunk from 50 to 200 feet below the surface. The area of this field has not been definitely determined, but consists of a strip of coal-bearing land from ten to thirty miles wide and extending from near Drexel in Cass County, Missouri, (53 miles south of Kansas City, Mo.), to Folsom, Kansas, some thirty odd miles southwest of Pittsburg, Kansas, (129 miles from Kansas City, Mo.) The trend of this coal field is from northeast to southwest. The coals found in this field, while all strictly bituminous, vary in quality and are found at varying depths. Along the edges of this field to the north, east and west oil and gas are more or less abundant and in Kansas are extensively exploited.

The annual production of the coal mines in Cass, Bates, Vernon and Barton Counties, Missouri, which form part of this field, runs between 900,000 and 1,000,000 tons. Coal has been found at Drexel, Amoret, Hume, Amsterdam, Merwin, Oskaloosa, Richards, Asbury and Stotesbury, Missouri, but coal mining is not the predominating industry at any of these points. The coal in this section is found at depths varying from surface strippings to sixty and one hundred feet.

The total production of the field is annually between six and seven million tons, and the great bulk of this comes from Crawford and Cherokee Counties, in Kansas. Twenty-three counties in Kansas produce coal, but more than 88 per cent of the coal mined comes from the two counties mentioned. Of the two hundred and fifty or more mines operated in Kansas, ninety per cent are in Crawford, Cherokee, Bourbon and Labette Counties. The value of a square mile of coal in Kansas has been estimated by the State Geologist to be between \$1,862,400 and \$4,185,600, taking the maximum and minimum coal prices for a basis. At the present rate of mining, 6,000,000 to 7,000,000 tons per annum, it has been estimated that the coal beds now known could not be exhausted within two hundred years. More than seventy coal companies, partnerships and individuals are operating in this field and the value of the annual output varies from \$9,000,000 to \$10,000,000.

The Arkansas-Oklahoma carboniferous area, of which Fort Smith, Ark., is the commercial and financial center, covers

approximately 29,000 square miles. Nine thousand square miles of this are credited to Arkansas and twenty thousand square miles to Oklahoma. Coal is found within this area, but not all the land within it bears coal. The Arkansas part of the field, as described in a report of the U. S. Geological Survey in 1905, is in the Arkansas River drainage basin, extending eastward from the Oklahoma state line about seventy-five miles. The greatest width is about fifty miles at the western border of Arkansas. The field is divided into two sections by a ridge extending fifteen miles due east from the Oklahoma state line. North of this ridge, the coal-bearing formation extends along both sides of the Arkansas River with an average width of twenty miles. South of the ridge the coal beds terminate about seven miles from the state line, except for a long narrow arm which extends into the Poteau and White Oak Mountains. This arm marks the southern limit of the coal field. The area actually known to be underlaid with coal consists of the 440,000 acres, or 687½ square miles in Oklahoma segregated by the U. S. Government for the benefit of the Indians, and approximately 600 square miles located in Arkansas, making a total of 1287½ square miles.

Coal is mined in Arkansas in Sebastian, Scott, Crawford, Pope, Johnson, Logan, Franklin and Yell Counties, and indications of its presence are found in Polk, Sevier and Montgomery Counties. In Sebastian County the coal field is thirty miles long and from three to fifteen miles wide. The coal beds are from three to eight feet thick and are found at depths of fifty to five hundred feet. Coal beds are reported to extend almost the entire length of the Arkansas Western Railway, some thirty miles, the beds being from six to nine feet thick. The Oklahoma coal beds, which are the western continuation of the Arkansas field, extend from the Arkansas state line to near South McAlester, Okla., and are principally located in Sequoyah, Le Flore, Haskell, Pittsburg and Latimer Counties. Seven or more coal beds are being worked commercially, the thickness of the beds varying from two to eight feet. The field is traversed by several railroads. The Kansas City Southern Railway enters the field about one mile south of Spiro and passes through coal for a distance of three and one-half miles. Coal is again found at Panama, Shady Point, and thence south to Poteau. West of Poteau is another large coal deposit and from Howe south to Poteau River the railway runs through a solid coal bed. The quantity of coal mined annually in Arkansas is about 2,000,000 tons, coming from 145 mines and the coal mined in Oklahoma is about 3,000,000 tons, coming from about 110 mines.

The coal mines and coal deposits convenient to the Kansas City Southern Railway are located as follows: In Missouri at Amoret, Hume, Amsterdam, Killion's

Spur, Willey's Spur, Scott's Spur, Drexel, Oskaloosa, Worland, Miller's Spur, Merwin, Mulberry, Richards, Asbury, Stotesbury, etc.; in Kansas at Nelson, Chapman Spur, Fuller, Mulberry, Frontenac, Pittsburg, etc.; in Oklahoma at Panama, Sallisaw, Poteau, Shady Point, Heavener, Witteville, Sutter, Page, Howe, Bokoshe, Spiro, Petross, etc., and in Arkansas at Bates, Fort Smith, Coal-dale, Coal Creek, Bonanza, Greenwood, Mid-land, Hartford, Jenny Lind, etc.

#### The Oil and Gas Industry.

The oil production of the United States in 1910 amounted to 216,588,368 barrels of 42 gallons each and of this immense production, the mid-continent field comprising Oklahoma, Kansas, Northern Texas and Northern Louisiana supplied 59,032,333 barrels and the Gulf Coast field in Louisiana and Texas 12,823,440 barrels. The total number of new wells drilled in the mid-continent field in 1910 was 4688, of which 625 were failures. The total number of wells in operation was 22,007 and the production was 59,032,333 barrels. In the Gulf Coast field 525 new wells were bored in 1910, of which 131 were failures. The total number of wells in operation in 1910 was 3013 and the production was 12,823,440 barrels. The exports of oil in 1910 from all American ports amounted to 1,396,995,440 gallons, valued at \$88,571,019, and of this total of miscellaneous oil products and crude oil 127,588,518 gallons were exported through Port Arthur and Sabine, the gross value being \$5,065,590. In 1905 there were 104 petroleum refineries in operation. Their total capital was \$136,280,541; they employed 16,770 wage-earners; paid in wages \$9,989,367; used materials costing \$139,387,213, and manufactured products to the value of \$175,005,320. The output of kerosene by the oil refineries has been estimated at 180,000,000 barrels of which one-half is consumed at home, and the other half is exported. The asphalt production in 1910 in the United States amounted to 208,655 tons, valued at \$1,938,273. The value of the natural gas production for 1910 was \$57,000,000., that of crude oil @ 40 cents per barrel \$86,735,347. This would give a total value of \$145,673,620 for the crude oil, gas and asphalt production of 1910.

The oil and gas wells of Kansas are located in Franklin, Allen, Neosho, Wilson, Montgomery, Chautauqua, Labette and Cowley Counties and have been in operation since 1890. The supply obtained from this field is large and a great refinery is operated at Neodesha, Kans. The greatest number of wells is in the vicinity of Neodesha, Erie, Chanute, Humboldt and Cherryvale, though there are hundreds of wells in other places. The large oil refinery at Sugar Creek, near Kansas City, is supplied from this field by oil pipe lines. The gas production of the Kansas field is enormous Kansas City, Mo. and suburbs, Joplin, Mo., Pittsburg, Kansas, and numerous smaller

towns located on the pipelines receive their natural gas for fuel and light from the Kansas field, which lies west of the Kansas City Southern Railway. East of it both oil and gas are found in Cass, Bates, Vernon and Barton counties, but no oil or gas industry has been developed, though many houses in town and country use natural gas from shallow wells.

In Oklahoma the most extensive oil developments have been made in Tulsa, Creek, Okmulgee, Pawnee, Osage, Washington, Mayes, Muskogee and Nowata counties. This field is connected with the Kansas field by oil pipe lines and has also two oil pipe lines running to Port Arthur, Texas. The Prairie Oil and Gas Company has a pipe line running via Neodesha, Kans., to Kansas City and Sugar Creek, Mo., and another line via DeQueen, Ark., to Baton Rouge, La., where it operates a large refinery. The Gulf Pipe Line Co. has a pipe line from Tulsa, Okla., to Port Arthur, Tex. This pipe line with its branches and connections has a length of 700 miles. The Texas Company has an eight inch pipeline from Tulsa, Okla., to Port Arthur, Tex., 560 miles in length. The Gulf Refining Company has a refinery at Port Arthur with a daily capacity of 20,670 barrels a day. The Texas Company operates a refinery at Port Arthur with a daily capacity of 12,000 barrels and another refinery at Dallas, Tex., with a capacity of 8,000 barrels per day.

The pipe line runs of all Oklahoma and Kansas lines in 1910 amounted to 49,459,733 barrels, the shipments 52,967,549 barrels and the stocks on hand December 31, 1910, —50,613,309 barrels.

Extensive oil and gas borings have been made in the last three or four years along the Kansas City Southern Railway at Sallisaw, Westville, Spiro, Poteau, Howe and Heavener in Oklahoma and at Fort Smith, Lockesburg, Lipton and Ashdown in Arkansas. Good indications of oil were found in several places notably at Lockesburg, Ark., but no oil in merchantable quantity was reached, though deeper borings may bring satisfactory results. Natural gas, however, is abundant and Poteau and Spiro, Okla., and Fort Smith, Ark., have available an enormous supply which is used for lighting and heating.

The Caddo Oil District (part of the mid-continent field) includes Caddo, Bossier and DeSoto parishes, Louisiana, and Cass and Marion counties, Texas. Its development began about 1908, when oil in merchantable quantity was obtained from a well near Mooringsport, La. The U. S. experts who have examined the field, pronounced it to be one of the largest oil fields in the country. Every well bored in Caddo Parish has produced either gas or oil and the wells vary in depth from 1000 to 2250 feet. Up to the present time there have been no very great gushers of oil, but the yield from most wells is steady and will add dollar to dollar for years to come. Two

and three hundred barrel wells are common and occasionally a 2000 or 5000 barrel well is brought in. The wells now cover a large scope of country and extend into Cass and Marion counties in Texas, but are most numerous near the towns of Caddo, Mooringsport, Vivian, Oil City, Lewis and Blanchard, La. Borings are being made near Frierson, Mansfield, La., Many, La., Loring, La., Leesville and places farther south and extend northwards as far as Texarkana. During the year 1910, two hundred and eighteen oil wells were bored in Caddo Parish and a daily output of 118,190 barrels was secured. The oil production for the year amounted to 5,680,000 barrels. Extending to Port Arthur, Texas are two oil pipe lines, and a third pipe line runs to Baton Rouge on the Mississippi.

The gas production of the Caddo district is the greatest in the United States. Three of the gas wells "went wild" caught fire and burned for several years before they could be subdued. Gas pipe lines extend to Shreveport, Texarkana, Marshall and numerous smaller towns and light and fuel are cheaper here than almost anywhere else in the United States.

Oil borings have been carried on in the Gulf Coast field from 1901 to the present day with more or less success. The borings have numbered from 1100 to 1500 per year about two-thirds of which yielded oil. The famous Lucas Gusher was bored at Spindletop, two or three miles from Beaumont, Texas in 1900, and spouted oil in January, 1901. The immediate vicinity of Spindletop was perforated like a pepper box within a few months and after that test borings were made in more distant localities, gradually extending east and west. In all 8082 wells were bored and of these there were in operation in 1910, three thousand and thirteen. The maximum production of the Gulf Coast district was in 1905, when it reached 37,046,605 barrels; in 1904, it was 25,200,371 barrels; in 1906, 21,645,429; in 1908, 18,041,594 barrels and in 1910, 12,823,440 barrels. In 1901 and 1902, the production, 23,353,626 barrels came almost entirely from the immediate vicinity of Beaumont; in 1910, the production, 12,823,440 barrels came from a large area including numerous wells in Texas and Louisiana.

The initial production at Beaumont prompted the construction of the great refineries at Port Arthur and Beaumont and most of the oil districts later developed and the earlier developments in Kansas and Oklahoma were connected by pipelines with the refineries at Port Arthur, making this city the second largest oil refining point in the world.

Oil is now being obtained or being bored for in the following named localities. Oklahoma, at Tulsa, Bartlesville, Pawnee, Taneha, Muskogee, Okmulgee, Osage, Turley, Owasso, Sapulpa, Red Fork, Delaware, Bird Creek, Hogshooter, Lenap<sup>h</sup>, Prior Creek, Sallisaw, Poteau, Westville, Heaven-

er and Spiro; in Kansas, at Neodesha, Erie, Chanute, Humboldt, Cherryvale, etc., in Arkansas, at Fort Smith, Lockesburg, Lip-ton, Ashdown, etc., in Louisiana, at Vivian, Hart's Ferry, Monterey, Lewis, Vinton, Jennings, Spider, Naborton, Welsh, Anse la Butte, Caddo, Oil City, Crowley, Edgerly, Trees City, etc.; in Texas, at Spindletop, Sour Lake, Batson, Saratoga, Humble, Dayton, Electra, Markham, Goose Creek, etc. Test borings are being made in places too numerous to mention, but it would appear that the operators are following a bifurcated streak of grease, beginning in southern Missouri and Kansas, extending thence through Oklahoma and Arkansas, Texas and Louisiana to the Gulf.

#### The Arkansas Slate Deposits.

Nearly all the merchantable slate deposits of Arkansas are situated in Polk, Montgomery and Sevier counties, and are most easily reached by way of the Kansas City Southern Railway. There are several railway stations—Mena, Gillham and Granville—which are quite convenient to the deposits and quite a number of corporations have been formed for the purpose of commercially developing the different beds.

The following, taken from the bulletin of the United States geological survey contains the findings of T. Nelson Dale in reference to the Arkansas slates.

"Six specimens were examined. No. 1, a black slate (phyllite) from Mena, near Big Fork, is a very superior quality of roofing slate, splitting readily, and not liable to discoloration on exposure.

"No. 2, a black slate (clay slate) from West Caney is a slate of very doubtful commercial value.

"No. 3, a dark red slate from near Big Fork, compares favorably as to cleavability and durability with the red slate of Granville, N. Y., though somewhat darker.

"No. 4 is a reddish slate (phyllite) from an unnamed locality, is intermediate in color between the Granville red slate and the dark red slate represented by No. 3, but it is slightly superior to the latter.

"No. 5, a gray green slate (phyllite) from Mena, seems to be of a rather doubtful value.

"No. 6, a light pea green slate, (phyllite) from an unnamed locality occurs with the reddish slate (No. 4) and is a very superior quality of slate. Its ready fissility, attractive color and the absence of calcium and magnesium carbonate all commend it."

Mr. Dale's conclusions are as follows:

"The remarkably fine cleavage and the absence of calcium and magnesium carbonate in the black (1) and the green (6) renders them exceptionally good. The reddish slate (4) is good and 3 may prove equally so. If Nos. 1 and 6 occurred in a populous region they would doubtless be in great demand for commercial purposes."—U. S. Geological Survey Bulletin No. 235, May, 1904.

The red slate of Arkansas is the second deposit of red slate yet discovered in the world. The only other deposit is found in Washington county, New York, the ledge extending across the state line into Vermont. The New York quarries have been the only shippers of red slate until within the past year, since which time a small amount has been shipped from quarries in Polk county in the state of Arkansas. These shipments have been made after a very careful investigation of the slate by experts who have made it a life-long study, and pronounced it a first class slate.

There are seven different colors of slate to be found in this part of Arkansas, a condition that does not exist in any other country in the world. Here we have the bright red, dark red, pea and olive green, silver grey, yellow and salmon color, rose colored, pink and blue black. Each color dresses and polishes equal to marble, and by reason of it being cheaper and not as easily broken, is rapidly taking the place of marble in structural and ornamental work, such as lavatory work, mantels, hearths, wainscoatings, cornice work, mouldings, in all shapes, bath and laundry tubs, counter tops, floor tiling, and many other uses. Each color is absolutely free from grit or other foreign substances, and when ground makes the finest mineral paints of their respective colors. Also a fire brick and a fine building brick. These facts have been demonstrated by expert analytical chemists in scientific tests. As will be seen, there is absolutely no waste, as the chippings and saw dust is valuable, and every pound of what in ordinary products is considered waste, in this is fully as valuable proportionately as the product.

When it is realized that Arkansas contains fully ninety per cent of all the red slate yet discovered, and that it is a commercial commodity of daily use, the attraction for industrial investment is certainly inviting and safe.

The National Slate Company of Kansas City, Mo., and Titusville Pa., is operating a slate mill and quarry twenty miles east of Mena, Ark. The products, slate roofing and dimension slabs for house interiors are finished for the trade at company's mill in Leeds, near Kansas City, Mo. The American Slate Company of Kansas City, has and is operating a quarry near the National Company's plant. The Southwestern Slate Company of Chicago, is operating a large plant at Slatington, 16 miles east of Mena, Arkansas.

#### The Marble Quarries on the K. C. S. Ry.

Excluding the marble quarries on the Kansas City Southern Railway, there are but three marble shipping states in the Union and these are Vermont, Georgia and Tennessee. The output from the quarries of these states is valued at \$4,000,000 to \$5,000,000 and one-half of the value is supplied by Vermont. The use of marble becomes

very expensive in the more westerly states because all three sources of supply are too distant from the places where the marble is consumed. A large proportion of the marble used in Illinois, Missouri, Iowa and Nebraska comes from Vermont and sells at prices varying from \$3.20 to \$12.00 per cubic foot. The state of Minnesota paid the marble quarries of Georgia \$700,000 for the marble used in its state capitol building.

Now, all this territory can be supplied from the quarries on the Kansas City Southern Railway in the future, and not only these states, but Texas, Oklahoma, Kansas, Nebraska, Missouri, Minnesota, Wisconsin and the Dakotas can draw their supplies from this source as well.

The marble beds of the Kansas City Southern Railway are situated at Bunch in Adair county Okla., and at Marble City in Sequoyah County, Okla., and cover a considerable scope of country. The deposit at Marble City is being systematically quarried and in magnitude is only equaled by the wonderful quarries of Vermont. The deposit is so located that it can be quarried as economically as any first-class building stone, with the advantage that it can be cut out in blocks of any dimensions. So uniform is this deposit that an exact duplicate of any of the ancient Egyptian monoliths or obelisks could be cut out in one single piece. Drill tests made in eleven different places have demonstrated that this deposit of marble is 142 feet deep and of excellent quality from top to bottom. The marble occurs in five distinct colors and each color takes a high polish and is very pleasing to the eye. A chemical analysis made at the United States Arsenal at Watertown, Mass., gives the following constituents: "Silicates, iron and alumina, 00.60; calcium carbonate, 91.74; magnesium, 7.46; calcium sulphate 00.20. The crystalline structure of this stone shows it to be marble." A test by compression shows that its ultimate strength is 14.270 pounds per square inch.

It is suitable for all purposes for which marble is used in construction, for exteriors as well as interior work and whenever presented has been kindly received. As over nine-tenths of this marble is carbonate of lime, the waste material can be converted into a most excellent quality of lime for building purposes and as fuel is very cheap and convenient, large lime burning plants will constitute a good investment here.

In 1906 several quarry companies were organized for the purpose of developing these deposits, but the financial disturbances of 1907 interfered with the carrying out of the plans then made. During 1910, the Western Marble Company was organized and this company is now operating the quarries, being fully equipped with all adequate machinery, boilers, engines, air compressors, derricks, channel-

ling machine, marble saws, trackage, warehouses and all other appliances necessary for the economical handling of this stone, which can be furnished in any desired dimensions and in any desired quantity. The general office and works are at Marble City, Okla.

#### Lead and Zinc Mining.

Now and then some deep shaft miner from Colorado or Arizona strays into the zinc and lead district of Joplin, Mo. and, after looking round about for a week, goes back to God's country where the mines are deep and copper, silver, lead and occasionally gold, are mined, to relate to his comrades how he wasted a solid week watching a lot of Missouri farmers gophering for cheap zinc and lead. A deep shaft miner from Colorado would no more concede that a Joplin lead and zinc miner, or a coal miner, was a real genuine miner, than would a regular army veteran concede that a militia man is a soldier. A Missouri miner is commonly designated, in the western mining camps, as a "lead and zinc gopher," and that is about as much recognition as they consider him entitled to.

Now, a mining district which can turn out annually lead and zinc ore to the value of \$15,000,000, and the men who get the stuff out of the earth are surely entitled to some consideration. That a good many hundred thousand tons of ore lie close to the surface is not the fault of the miner, but is due to the geological structure of the country. As a rule, in the Joplin district, the ore is found in large and small deposits, or pockets, and extends from the grass roots down, no one knows how deep. Sometimes the deposits are more or less connected but they do not occur in regular fissure veins as in other mining regions. By means of core drill borings, from 100 to 200 feet deep the presence or absence of a deposit is determined and then it is only a question of going after it.

The earliest mining in Jasper and Newton counties, Missouri, began about 1850, and it is estimated that 340 tons of lead were mined from 1850 to 1854. At Granby in Newton county, Mo. a lead furnace was built in 1858. About the same time lead was discovered in Cherokee county, Kansas, by a Cherokee Indian named Howland; in 1866 Col. Baxter, after whom Baxter Springs, Kansas, is named, found lead in another place, and in 1872 and 1877 lead was discovered at Galena, Kansas. In 1872, lead mining was begun at Joplin, Mo., and there were a dozen other camps in operation. Zinc ore was very abundant but very little was known of its value for some years. Exclusive lead mining was the engrossing business of the mining camps for a few years, but as the value of zinc became better known the latter product became the principal output of the district.

The output of lead ore from the district is given as follows: 1850 to 1860, Tons, 25,000; 1860 to 1870, tons, 16,000; 1870 to

1880, tons, 60,032; 1880 to 1890 tons, 123,430; 1890 to 1900, tons, 446,871; 1900 to 1910, tons, 362,052. The zinc output was in 1873, tons, 960; in 1880, tons, 27,500; in 1890, tons, 114,900; in 1900, tons, 248,446; 1909, tons, 290,605. The value of the lead and zinc ore mined was in 1873, \$8,640; 1875, \$36,000; 1880, \$440,000; 1885, \$1,148,000; 1890, \$2,642,700; 1895, \$2,919,483; 1900, \$7,211,105; 1905, \$11,334,320; 1909, \$15,016,272. During the past thirteen years the production of lead and zinc ores from the district amounted to \$137,397,554; these figures representing the actual prices paid for the ores at the mines by the buyers, for the zinc and lead smelters and the Picher Lead Works of Joplin. The proportion of ores now mined is approximately seven tons of zinc to one ton of lead.

The Joplin lead and zinc district, also known as the Missouri-Kansas-Oklahoma district is located in southwest Missouri, southeast Kansas and northeast Oklahoma, extending as now developed from Miami, Okla., one hundred miles in a northeasterly direction to Springfield, Mo. From Neck City to Granby, across the field from northwest to southeast, the distance is forty miles. In the earlier days of the industry nearly all the mining was done between the grass roots and a depth of sixty or seventy feet from the surface. During the last five years a number of mines have reached a depth of 150 feet and a few have gone deeper. Drill holes show good ores at depths of 150 to 300 feet.

Joplin, Mo. is the ore market for the entire production of the district. The ore itself is produced in Joplin and the mining towns of Webb City and Carterville, Duane, Prosperity, Alba, Aurora, Granby, Spring City, Oronogo, Carthage, Zincite, Sarcoxie, Cave Spring, Carl Junction, Stotts City, Wentworth, Seneca, Peoria, Everton, Purdy, Ashgrove in Missouri, Galena, Badger, Kansas, Miami, Quapaw, and Davis, Oklahoma. The values produced in 1909, were as follows: In Missouri, Zinc, \$10,350,770; lead, \$2,099,417; in Kansas, zinc, \$1,211,433; lead, \$94,930; in Oklahoma, zinc, \$630,567; lead, \$226,531—total zinc \$12,192,770; total lead, \$2,420,878.

Lead and zinc ores have been found in many places along the line of the Kansas City Southern Railway, but have not been developed except as above described. Zinc, lead, copper and antimony in merchantable quantities have been found in Polk and Sevier counties, Arkansas. The town of Gillham in Sevier county is situated in a rich mineral belt, which is about seven miles wide and some forty odd miles long, extending from the Saline River, in the eastern part of Sevier county far into Oklahoma. The general direction is from northeast to southwest, nearly all of the belt being in the north quarter of the county. The minerals found in this region are lead, zinc, copper, antimony, iron ore and some manganese. Lead, zinc and antimony ores

have been shipped from Gillham in considerable quantity, but mining activity in this region has always been spasmodic. Six miles southwest of Gillham is the Bellah Mine, which has shipped lead, zinc and antimony; four miles northwest, the Davis Mine, producing lead and zinc; six miles west, the Copper King, partially developed and producing copper, lead and zinc; three miles west, the Balcom Mines, lead and zinc; two miles south, the Valley Mine, producing antimony; three miles east, the Wolfton Mine, antimony, and eight miles east, the Antimony Mines. All of these have shipped ores. Besides there are numerous prospects in various stages of development, all with good indications of mineral. The ore is found in five or six parallel mineral veins from three to twenty feet wide, extending across the northern part of the county.

As stated, there has been no systematic continuous mining, as mining is conducted in other localities, but the showings made have been good enough to warrant a thorough exploration of the field and this may be expected in the near future.

In Polk county numerous outcropping of ores of various kinds have been found, including lead, zinc, copper, antimony, manganese and iron. The two last named are abundant but have not been sufficiently explored to determine whether or not they are present in quantities large enough for manufacturing purposes. It is thought that the manganese in quantity is sufficient for commercial shipments. Iron ores have been found on Poteau River near Howe and Page, Okla., near Cauthron in Scott county, Ark., near Acorn, Mena, Cove, Rich Mountain, Cassatott Mountain, Cave Creek Mountain, Gillham, Hatfield and Vandervoort in Arkansas and is available commercially in Cass county, Texas, and Marion county, Texas, and is found in commercial quantity and quality in nearly all the Texas counties bordering on Sabine River.

**Fire and Brick Clays.**—The entire coal and gas region along the Kansas City Southern Railway abounds in valuable clays and shales, suitable for brick making and in several localities large clay working industries have been established as at Pittsburg, Kansas, Fort Smith, Ark., and Texarkana, Tex. The proximity of extra cheap fuel, coal, oil or gas, to nearly all of these clays offers some splendid opportunities in this line of manufacture. Good clays are extra abundant in the Cherokee Coal District, in the country between Goodman and Stillwell, I. T., in the Fort Smith coal district and near Mena and Hatfield, Ark. Many of these clays are well suited for fire brick and for sewer piping and structural clay work. Great deposits of fire clays and potters' clays are found near Texarkana, Tex., and Shreveport, Mansfield and other places in Texas and Louisiana.

**Raw Material for Cement.**—Chalk and Cement Clays, enough in quantity to furnish a thousand barrels per day of finished Portland Cement for seven hundred years exist at White Cliffs in Little River County, Ark. A large cement mill has been in operation at White Cliffs for a number of years. A corporation has been formed with \$1,500,000 capital to erect a new cement mill having a daily capacity of 3,000 barrels of Portland Cement. A few miles northwest of Ashdown, in the same county, is another deposit of chalk reported to exceed in magnitude the one above mentioned. This form of lime is readily assimilated by sour soils and is very useful in agricultural operations. Phosphate rock has

been found at Anderson, Lanagan, Pineville, White Rock, Noel and Cleveland in Missouri, and Stilwell and Westville in Oklahoma. Marl is found at White Cliff and Brownstone, Ark., and a green sand marl in Caddo, DeSoto and Sabine Parishes in Louisiana. Their value as fertilizers has not been determined. Tripoli is mined at Neosho, Mo., and is found also Siloam Springs, Fisher's Ford and at Low Shaft in Washington County, Arkansas.

**Water Powers** for manufacturing purposes are available near Lanagan, Neosho, Noel and Pineville, Missouri, and near Mena, DeQueen, Hatton and other places in Arkansas.

## The Border Counties of Arkansas

Adjoining Oklahoma and Texas on the east are nine good sized counties, which by reason of their natural resources will in the course of time be designated as among the richest in the state of Arkansas. Their future prosperity does not depend upon any one resource, but upon the variety of resources they have within their borders. While all these counties have much in common, they have differences in soil, in climate, in altitude and in resources which give to each section some advantages peculiar to itself. All of these counties skirt the irregular western and southern slope of the Ozark mountains or plateau, some of them well in the mountains, others along the slopes and some of them distinctively lowland counties. Their altitudes vary from 350 feet to 2,500 feet above sea-level and the soils vary from gravelly hillsides to the richest black river bottoms found anywhere.

The Ozark uplift or plateau is an irregular, triangular shaped table land varying in altitude from 1,000 to 2,500 feet, commencing on the Missouri river, between the Gasconade and Osage rivers, extending southwesterly across the state of Missouri into Arkansas, overlapping into Oklahoma and terminating near Red river. In Missouri several spurs run easterly almost reaching the Mississippi river. The course of the St. Louis Iron Mountain & Southern Railway fairly indicates its eastern boundary, while the line of the Kansas City Southern Railway indicates the location of its western slope, except in several locations where the line was carried through the mountains. The Arkansas river divides the plateau into two sections; the higher elevations being in northwestern Arkansas north of the river, and in Scott, Polk, Montgomery, Pike and Howard counties south of the river. In the course of the ages, the plateau has been subject to tremendous erosion and has been cut up into thousands of

water courses, hills and valleys which give it the appearance of a mountain range. Most of the Ozark region consists of soil covered stratified rock, mostly limestone, but in southeastern Missouri and in Polk, Howard, Pike, Montgomery and Sevier counties, Arkansas and McCurtain county, Oklahoma are evidences of violent volcanic disturbances which seem to follow a line extending from Washington county, Missouri to McCurtain county, Oklahoma.

The western tier of Arkansas counties lies between the 33rd and 37th degrees of latitude and on the 94th degree of longitude and has an annual rainfall of 40 to 50 inches ample and sufficient for all agricultural purposes. The soils admit of the greatest diversity in crop production, the forest resources are great and varied and of undeveloped mineral resources there is a great variety and abundance. There is an immense coal field, a gas and oil field, enormous deposit of fine slate, lead, zinc, antimony, iron, manganese, asphalt, clays, limestone, chalk and cement materials, sufficient in quantity to last for centuries, glass, sands and hardwoods, all capable of ultimate development. There can be no question as to the existence of large bodies of ores. The prospecting done so far has not uncovered a one hundredth part of the ore-bodies. With the further development of the country and the building of additional railroads will come a thorough development of the mineral resources.

Benton county forms the northwest corner of the state, has an area of 892 square or 570,880 acres, an average altitude of 1,200 feet and a population of 33,389. It lies on the western slope of the Ozark uplift and has more or less hilly land though there are also fine large level areas all in a high state of cultivation. It is in every sense a first class general farming country and the valley lands readily produce from twenty to thirty bushels of wheat or from forty

to seventy bushels of corn per acre. Forage crops of all kinds yield bountifully and horses, mules, cattle and hogs are raised in great numbers and are profitably marketed. The uplands also produce well, but are particularly well suited for the commercial production of fruit, berries, truck, poultry and eggs and, as a matter of fact Benton county is more famous for its fruit, berry and poultry shipments than for its general farm products. It is estimated that there are about six million apple trees, two and one-half million peach trees and several thousand acres of strawberries and blackberries in the county. The fruit shipments in an ordinary year run in value from three to three and one-half million dollars, and another million might be added for poultry and eggs.

Benton county was originally heavily wooded and still has an abundance of timber suitable for all purposes. Excellent limestone for building or for the manufacture of lime and good clays for brick are found in all parts of the county and indications of lead and zinc have been found in several places. The manufacture of fruit products and dairying are important industries. In this county as in other fruit growing counties of Arkansas, the fruit shipping towns are surrounded by a dense rural population within two or three miles of the railway station, who are practically town people, but live just outside of the town limits. Bentonville is the county seat and has 1,956 residents in the town limits and 3,755 in the township. Rogers, the largest town has 2,820 inhabitants, the township 4,476; Siloam Springs 2,405, the township 3,885; Gentry 668, the township 1,383, Decatur 246, the township 1,156; Sulphur Springs 500, the township 1,050; Gravette 569, the township 1,254. Bentonville, the county seat, 1956, the Township 3755. All of these are important fruit, berry and poultry shipping points and a visitor to any of them would find it difficult to determine visually where the town ends and the country begins.

Siloam Springs and Sulphur Springs are highly esteemed health and pleasure resorts and are visited annually by several thousand people from Oklahoma, Texas and Louisiana, who spend most of the summer season there.

Washington county is not traversed by the Kansas City Southern Railway, but is easily reached by way of Westville, Okla., where there is a crossing of the K. C. S. and the St. L. & S. F. Railways. This county lies immediately south of Benton county, has an area of 975 square miles and a population of 33,889. The general altitude is about 1,500 feet above sea level and the surface is diversified, having hills, valleys, level plains and rugged places, but nearly all of the land in the county is tillable and capable of prolific production. It has numerous small streams and thousands of springs and is a splendidly watered and drained. The valley or bottom lands are rich alluvial soil and profitably produce every crop known in this

latitude. The hill lands, while fertile, are well adapted to the cultivation of apples, peaches and berries and the acreage devoted to these crops is nearly as large as in the adjoining county of Benton. The fruit, truck and poultry output of the county in an ordinary year is valued at about \$2,000,000.

The county has an abundance of good timber for building and for fuel, etc., as well as limestone and good clays. There are in all twenty-five towns and one hundred and sixty-five schools in the county. Fayetteville is the county seat and has 4,471 inhabitants. Springdale, population 1,755, and McNair, Lincoln and Winslow are important fruit shipping points.

Sebastian county, area 542 square miles, lies on the south bank of the Arkansas River and adjoins the east line of Oklahoma. The population is 52,278, of whom 23,975 reside within the city limits of Fort Smith. The surface of the county is hilly and undulating and slopes to the north from an altitude of 2,500 feet to 400 feet at the Arkansas river. Along the western border there is some prairie land but most of the county was originally timbered. There is yet available in large quantity almost every kind of merchantable timber used in the United States. The principal field crops are cotton, corn, wheat, potatoes and forage of various kinds. About 100,000 bales of cotton, and sometimes 1,000 carloads of potatoes are shipped through Fort Smith and other stations. Fruit and berry growing is carried on extensively and in some years 100,000 to 150,000 crates of strawberries and a hundred or more carloads of peaches have been shipped to the great northern cities, from this and the adjacent, Crawford, county.

The industrial development of the county has been great and new manufacturing enterprises are started every month. The most important of these are the furniture and woodworking plants of Fort Smith, including great wagon works, the brick manufacturing plant, clothing factories and cotton product mills. Nearly all of Sebastian county is underlaid with semi-anthracite smokeless coal of which 2,500,000 to 3,000,000 tons are annually mined, representing a value of \$5,000,000 to \$7,000,000. Close to Fort Smith is a great oil and gas field providing natural gas for light and fuel for Fort Smith and adjacent towns and oil has been obtained in sufficient quantity to warrant the building of a large oil refinery which is in operation. Fort Smith transacts an annual jobbing trade valued at \$30,000,000 and the output of its factories is valued at \$3,000,000 to \$3,500,000.

Crawford county lies north of Sebastian county and borders on the Arkansas river and its north line adjoins Washington county. The area is 60 square miles or 384,000 acres and the population 23,942, that of Van Buren, the county seat 3,878. The surface of the county slopes from north to south, the altitude varying from 450 feet on the Ar-

Kansas river to 1,600 feet near the north line. The surface is more or less rough and broken, being traversed by numerous streams which have small but very fertile valleys. The production of corn, grain, cotton, forage and livestock is large and in point of acre yield is as large as in any other county in the state. Van Buren is known in the fruit trade as one of the most important shipping points on account of its great shipment of peaches, strawberries, commercial truck, potatoes, cantaloupes and melons. Apples are grown extensively on the table lands and higher elevations, peaches produce immense crops and the strawberry production is enormous. The shipments via Van Buren sometimes reach 750 carloads, netting the growers \$1,000 per car. The total value of the fruit, berry, potato, cantaloupe and truck crop exceeds \$3,000,000 per year. The fruit and truck growing industry of this county is capable of indefinite extension.

The southern half of the county is underlaid with an excellent quality of coal which is mined in a large quantity and superior brick clays and shales are found in close proximity. Good hardwood timber suitable for many industrial purposes is abundant. Points in Crawford county are easily reached by way of the Kansas City Southern Railway through Fort Smith.

Scott County has an area of 1000 square miles and a population of 14,302; Waldron, the County Seat has within the city limits 900 people and in the township 2,479. The surface consists of several wide valleys running east and west, with an intervening broken, hilly country, ranging in altitude from 600 feet to 2,700 feet above sea-level. The valley lands are exceptionally fertile and produce from three-fourths to one and one-fourth bales of cotton, from 40 to 80 bushels of corn and from 10 to 25 bushels of wheat per acre. The uplands ordinarily produce about two-thirds of the bottom land crops. A large part of the upland is splendidly adapted to the production of apples, peaches, berries and truck and during the last three or four years a very large acreage has been planted in these crops. The native pasturage is excellent and stock raising is profitable. Lumbering and coal mining are the principal industrial pursuits and both coal and fine timber are abundant. Iron and zinc ores exist in several localities and good clays and brick shales are found almost everywhere. There are extensive coal mines at Coaldale and Bates and saw mills are in operation at Cauthron and other places. Indications of oil have been found at several places and a test well is being bored at the present time.

The county has seventy-six public schools most of them open nine months in the year. The City of Waldron is the terminus of the Arkansas Western Branch of the Kansas City Southern Railway, which leaves the main line at Heavener Junction, Okla. It

has two banks, a roller mill, a gas plant, two hotels, cotton gins, two planing mills, a first class high school and such other facilities as are incident to a town of 1500 to 2000 people. The towns along the Arkansas Western Branch are Hon, Cauthron, Coaldale, Bates and Oliver.

Polk County is the third county south of the Arkansas River, has a population of 17,216 and an area of 868 square miles. Its altitude varies from 1000 to 3000 feet, the surface being rolling, traversed by picturesque ranges of mountains and several large streams. The climate is delightful all the year round and public health is excellent. Nearly all of Polk County was originally covered with forest though a very large acreage is now in cultivated farms. Yellow pine and all kinds of hardwoods are still abundant and a large sawmill and wood working industry is carried on in several parts of the county. The annual output of pine lumber will probably amount to three quarter of a million dollars and the output of hardwood timber in the form of lumber, railroad ties and staves will amount to nearly as much. The timber consists of white oak, post oak, red oak, ash, wild cherry, walnut and hickory and is suitable for furniture, berry crates, boxes, handles, hubs and all kinds of buggy and wagon timbers, cooperage stock, etc., and is present in sufficient quantity to supply the needs of manufacturing plants, for years to come.

The mineral resources of Polk County have attracted the attention of prospectors and investors for a good many years. Good indications of lead, zinc, silver, copper, gold and antimony have been found in many places and have been mined in a desultory manner at several points. Antimony and zinc ores have been shipped to the smelters occasionally, but no permanent mining industry has as yet been established. Iron ores and manganese ores are found in many places in the county. Their commercial value has not yet been determined. The greatest slate deposits in the United States are present in this county. It has been definitely determined that there is more red slate in Western Arkansas than there is black slate in Pennsylvania and Vermont. There are great deposits of red, green and black slate in Polk County beginning eight miles east of Mena and extending eastward thirty-five miles. Three Slate Companies have extensive quarries opened and are quarrying and shipping slate through Mena, Ark., in the form of roofing slate, switch boards, wainscoting, etc., etc. Novaculites suitable for abrasives and for the sharpening of fine tools are abundant in many places and indications of asphalt, coal and oil deposits are present in several localities.

All the streams of Polk County originate in the county, which is entirely free from stagnant water or mosquitoes. Small ranges of mountains cross the county in

places, but probably three-fourths or more of the area is tillable and perhaps half of it is in cultivation. The surface soil is composed of about equal parts of clay and sand and the subsoil is in general a deep red clay. All the new land is not only very fertile, but old land, even after years of cultivation is susceptible of producing wonderful results if properly handled. All the field crops of Arkansas are successfully grown and very few sections of country are so well adapted to the profitable raising of horses, mules, cattle, hogs and sheep as is Polk County. The native pasture is excellent, the water of the purest and best, in the United States and forage can be cheaply grown in any desired quantity. By reason of its altitude, Polk County produces most excellent winter apples in large quantity and with greater certainty than do the sections generally credited with superiority in apple production. Being protected by the mountain ranges, fruit is seldom injured during the winter and peaches will ordinarily yield a fine crop when they fail elsewhere. The shipments from Polk County will run in an ordinary year from 5,000 to 15,000 bales of cotton, 10 to 30 carloads of apples, 6,000 to 10,000 cases of eggs, 90 to 150 carloads of cattle, 15 to 30 carloads of hogs and considerable shipment of peaches, cantaloupe, strawberries, poultry, etc. As the home consumption is large only a small part of the total production is shipped away.

The city of Mena, population 3953 (in township 4968) is the county seat. The other towns along the railway are Rich Mountain, Eagleton, Acorn, Potter, Hatfield, Cove, Vandervoort, Hatton, Wickes and Granniss.

Sevier County is the second county north of Red river, bordering on Oklahoma for 17 miles and extending southward to within 20 miles of Red river and the Texas line. It lies in the southern foot hills of the Ozark uplift and its general slope is south and southeast. It is bounded on the east by Saline river and on the south by Little River. The Cossatot and Rolling Fork rivers cross the county from north to south emptying into Little river. Numerous tributaries fed by perennial springs flow into all four of these rivers. The area of the county is 600 square miles and eighty per cent of it is tillable. Black sandy loams and black lime lands are found along the numerous river and creek valleys, while a strong red soil is common to the uplands. The ordinary field crops are corn, cotton, alfalfa, potatoes, grain, particularly oats and forage and hay crops, all of which yield abundantly and used in connection with live stock are very profitable. The cotton crop runs from 10,000 to 13,000 bales per annum. Fruit growing and commercial truck farming have become a great industry in this county. In the vicinity of De Queen, the county seat and near Lockesburg are about 6000 acres devoted to peach orchards,

berry cultivation and truck, and great quantities of peaches, Irish potatoes, cantaloupes, tomatoes, melons, and garden vegetables are shipped north each year. At Horatio in the same county is one orchard of 3000 acres planted entirely in Elberta peaches, which during 1911 will yield 1000 carloads of peaches. Fruits of every kind do well here as the county is well protected by the Ozark mountains north of it and peaches will make a crop here when they fail almost everywhere else. Alfalfa yields from 6 to 7 ton per acre; corn from 30 to 65 bushels; wheat from 15 to 25 bushels and live stock of all descriptions and poultry are highly profitable.

The mineral wealth of Sevier county is as yet undeveloped. Deposits of antimony have been found in the northern part of the county. Lead and zinc deposits or veins are found in the same locality (near Gillham). These have been prospected sufficiently to show that they are available in commercial quantity. Silver and copper ores have been found near De Queen and manganese and iron are common in the same locality. Chalk of the kind used in making Portland cement has been found on the southeastern border and a half mile belt of limestone extends east and west clear across the county. Asphalt exists in the southeast corner of the county as well as lignite and coal indications. Both oil and gas have been found in a test well, but deeper borings will be necessary to determine whether or not oil is present in commercial quantity. Shales and clays for brick and tile making are abundant in various places.

Sevier County was heavily timbered until quite recently and still exports large quantities of lumber and other timber products including cross ties, telegraph poles, wagon timber and cooperage stock. Most of the timber of commercial value is yellow pine, but there are also available large quantities of red oak, white oak, hickory, sweet gum, red cedar, sycamore, ash, elm and holly.

There are great possibilities in the development of the chalk, clay, asphalt, lead, zinc and antimony deposits and in the working up of the hardwoods and other raw material. Water power is abundant in the county and several thousand horsepower can be developed when the need for the same comes.

The Kansas City Southern Railway crosses the county from north to south, the De Queen and Eastern Railway has a mileage of 21.63 miles, extending eastward into Howard county and the Memphis, Dallas & Gulf Railway cuts across the southeastern part for a distance of five miles. There are 68 school districts in the county and in the larger towns graded schools are maintained nine months in the year. The principal towns in the county are De Queen, the county seat, Lockesburg, Gillham and Horatio. Little River County has an area of 547

square miles or 355,840 acres. The population is 13,597 and the general altitude from 350 feet to 500 feet above sea-level. Little River forms the north boundary, Red River, the south boundary and on the west McCurtain county, Okla., forms the boundary. Through the center of Little River county, running east and west is a low ridge from which the land slopes north and south to the bottom lands which skirt the streams. Nearly every acre in the county is tillable and a very large part of it is very rich alluvial soil. The valley lands along Red River are deep sandy loams, friable and easily tilled and will produce from 50 to 75 bushels of corn, from three fourths to a bale and a half of cotton and from five to seven tons of alfalfa hay to the acre. Potatoes, sugar cane, timothy clover and all other staple crops of Arkansas do well on this soil. The soils of the Little River valley are of equal fertility and consist of dark deep sandy loams, all of them easy of cultivation. The remainder of the surface of the county is composed mostly of rich, dark, sandy loam upland underlaid with a red clay subsoil. This soil is well suited for the standard field crops, yielding about two-thirds as much as the river bottom lands and is also splendidly adapted to the cultivation of fruits, melons, potatoes, tomatoes, berries, peanuts, cantaloupes, etc. The annual rainfall is about 46 inches and a failure of crops has never occurred in this county. The farms range in area from eighty acres to two hundred acres and more and old fashioned general farming, the production of small grain, oats, wheat, corn, cotton, alfalfa, forage crops, the raising of livestock, poultry etc. are the engrossing pursuits.

The climate of Little River county is pleasant all the year around and so mild in winter that stock can be kept on the open range. Horses, cattle and hogs run at large on the range all the year and are raised at a minimum cost. The native pastureage is good about ten months in the year and in winter there is a growth of switchcane along most water courses which furnishes subsistence. The water is good everywhere in the county and when not obtained from springs or small creeks is found in wells fourteen to twenty-five feet deep.

The county was originally heavily timbered and much of the pine timber has been manufactured into lumber but there still remain large quantities of oak, pine, elm, cottonwood, hickory, ash, pecan, gum and of such quality that furniture factories, cooperage plants, wagon timber mills, box

and crate factories and veneering mills would have sufficient raw material for many years to come. The mineral resources consist of enormous beds of chalk and clays used in the manufacture of Portland cements. One deposit at White Cliffs in the eastern part of the county, is sufficient to supply the largest cement mill in the United States for 500 years. Another equally large deposit exists northwest of Ashdown, the county seat. Lignite and gas and oil indications exist in the southern part of the county and numerous tests borings are being made at the present time to determine the quantity of gas and oil available. Valuable brick and potters' clays have been found in several localities.

Ashdown, the county seat, has 1247 inhabitants within the town limits and 1917 in the township; the other towns along the K. C. S Ry. are Winthrop, Wilton, Ogden and Allene. The railways in the county are the Kansas City Southern, the St. Louis & San Francisco and the Memphis, Dallas & Gulf Railways, all of which enter Ashdown.

Miller County is the southwest corner county of the state, the west boundary being the Texas state line and the south boundary that of Louisiana. The area of the county is 648 square miles and the population 19,555. The greater part of the surface is gently rolling, some of it level. The soil is fertile as in Little River county and the crops produced are of the same kinds and yield in like quantity and quality. Texarkana, Ark., is the county seat and has 2,655 inhabitants within the city limits and 10,591 in the township. Texarkana, Texas, adjoins Texarkana, Ark., and has a population of 9,700 within the city limits. The joint population of the two cities is 15,445; in the suburbs which are not included in the official count, are probably 10,000 more.

Every citizen of the United States, native born or naturalized, who has not taken advantage of the homestead law, is entitled to enter 160 acres of land. For this a fee of \$14 is charged. Application to enter may be made in the U. S. land office at Camden, Arkansas or before the clerk of the county court in which the land is situated. However, this office has no representative in any of the counties mentioned. Residence of five years and a compliance with the law secures patent for the land. If the entryman, after fourteen months residence and cultivation, desires, he can purchase the land at \$1.25 per acre.

## Miscellaneous Mention

### SOUTH MANSFIELD, DE SOTO PARISH, LOUISIANA.

This is a brand new town, incorporated in May, 1911, and distant from Mansfield, La., about two miles. The population is 1500. It has seven large manufacturing plants, saw mills, planing mills, cotton seed oil mill, employing 500 men, several large mercantile establishments, electric street lights, Union Depot, public hall, 75 business buildings and dwellings and other accessories that go to make up a town. Mr. J. C. Yarbrough, the mayor, advises that South Mansfield now needs a bank, a loan and building association, a modern hotel, a livery stable, a hardware store handling builders' supplies, grocery and feed store large enough to do a jobbing business, brick and tile plant, cannery, but above all, the town and county needs farmers who have some capital and brains and who will farm intelligently. Eight miles east of South Mansfield a large gas well has been brought in and a franchise has been granted to pipe the gas into town for manufacturing purposes, light and household uses. Good indications for oil have been found both east and west of here and several wells are now being sunk for oil.

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**Elk Springs Mo.** has equipped itself for the entertainment of fishermen and others who wish to take a vacation and have a good time for either a day, a month or the rest of the year. Mr. W. H. Fleming, Elk Springs, McDonald Co., Mo., writes that the Riverside Farm Inn is open to the public and that on the grounds will be found a fine tennis court, croquet grounds, artesian wells of sulphur, iron water and springs of the purest, softest Ozark Mountain water. Within three miles of the Riverside Farm Inn are twelve miles of the finest fishing water and the most beautiful scenery in the State of Missouri. Elk Springs is on the bank of Elk River, and on the Kansas City Southern Railway, 198 miles south of Kansas City, Mo.

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**Joplin, Mo.**, through its Commercial Club, H. A. Forkner, secretary, has just been taking an inventory of its assets and finds that it has the following named things within its city limits, figuring only on things material: Seventeen public schools, none better in the state; a public library costing \$50,000; Government Postoffice costing \$100,000; Orphan Home costing \$20,000; Hospital costing \$80,000; Elks' Home costing \$70,000; one hotel costing \$600,000 and fourteen others of lesser value; church build-

ings \$400,000; nineteen wholesale houses; thirty-four manufacturing concerns; eight banks with \$6,000,000 deposits; five railroads; three daily newspapers; U. S. and State court houses; municipal electric light plant; forty miles of sewerage; one hundred and fifty miles cement walks; one hundred and fifty miles of paved streets, one hundred miles electric street and interurban railways; an automobile fire equipment; natural gas and coal for cheap fuel; cheap building material in abundance; two telephone systems with 8,000 telephones and over 14,000 connected telephones; three hundred miles of the best country roads leading into and out of the city; distributing point for electric power plant with 30,000 horse power; weekly mining pay roll of over \$80,000; a lead and zinc production between 1900-1909, \$98,357,388.

In addition to which Joplin is a modern, wide-awake, progressive city, the metropolis and business center of Southwest Missouri, Southeast Kansas, Northwest Arkansas and Northeast Oklahoma, an empire whose wealth of natural resources is unparalleled. The population of Jasper County, which has an area of 672 square miles, is 190,000 and its surplus products for 1910 amounted to \$17,997,687.

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The Calcasieu Truck Growers' Association started its first carload of cantaloupes from Lake Charles, La., for Seattle, Washington on June 5th. This is the first shipment of cantaloupes ever made from Southwest Louisiana. Over fifty carloads of cantaloupes will be shipped north from Lake Charles during the season. This, and other commodities, are now produced at Lake Charles in commercial quantity and the buyers now come to Lake Charles and transact business on a spot cash basis. Three cars of mixed vegetables have also been shipped and twelve more will probably be marketed. The potato crop will be the largest produced in many years. Two years ago it would have been impossible to secure one single carload of truck for shipment. The foregoing will make it possible to form some idea as to the rapidity with which truck growing is being taken up in this section.

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The Very Reverend A. P. Gallagher of Mena, Ark., who is interested in increasing the membership of the Catholic congregations at Mena and DeQueen, Arkansas, has been eminently successful during the past year in locating new Catholic settlers. Over two hundred and fifty sales of land were made to members of the church by local land owners, and about

\$60,000 were invested in lands alone. The actual investment in lands, live stock, agricultural implements and farm improvement, is about \$100,000.

"The Italy of Arkansas" is the title of a very attractive and highly illustrated booklet published by the management of the Memphis, Dallas and Gulf Railroad, whose general offices are at Nashville, Howard County, Arkansas. The same contains complete descriptions of Little River Howard and Pike Counties, Ark., and can be obtained by addressing Traffic Manager, M. D. & G. R. R., Nashville, Ark., or the Southern Realty and Trust Co., Ashdown, Ark.

The Chamber of Commerce of Poteau, Oklahoma, has just published a full and complete description of the city, its resources and of Le Flore county, of which it is the county seat. The information contained in this publication is valuable to anyone seeking a location for any line of business or manufacture, or who may desire to engage in farming or fruit-growing. Copies may be had by addressing the Chamber of Commerce, Poteau, Okla.

The Texarkana Board of Trade, V. E. Buron, Texarkana, Tex., Secretary, has recently issued some interesting printed information concerning this city, covering all points which anyone desiring to engage in mercantile, professional or manufacturing ventures could have need for. The booklet is also of interest to the farmer, stock-raiser and fruit-grower, as the character of lands and agricultural resources are fully described.

The Fort Smith Commercial League, Fort Smith, Arkansas, has a new folder describing the opportunities for business and for new manufactures and available resources in the vicinity of Fort Smith. Copies of the same can be had on application.

The Commercial Club of Kansas City, Mo., is now engaged in organizing a great fair and exposition. The capital stock of the Association is to be \$500,000, and it is thought that the buildings and grounds will be ready for the first really great exposition in October, 1912.

#### CUT-OVER TIMBERLANDS.

The country traversed by the Kansas City Southern Railway through Arkansas and Louisiana was originally one immense forest of pine trees, with some hardwood along the streams. A considerable acreage at various points, has been cut over and the land made available for farming.

The lumber companies operating the sawmills are of necessity large corporations and have not felt the need of being in any

hurry to sell the lands, but the railroad company is anxious to have something done with them that will bring to it some revenue. That land not in cultivation is not a good asset to the railroad near it, is very evident.

Therefore we have been endeavoring to get these lumber companies to sell some of their lands to actual settlers and we have the assurance from some of them that they are willing now to do so, and will make reasonable prices and favorable terms.

Farmers buying lands of the lumber companies buy from the owners at first hand. They all say they do not want to sell too many farms, as they know the value of the lands will increase every year. Such soil, together with the climate, will produce much more revenue than can be done anywhere else in the country and will before so very many years, bring more money per acre than land anywhere else. It is a self evident fact that the more revenue per year they will yield, the more the land should be worth.

The following lumber companies will furnish detailed information on application. Address them at the point named, near which the lands are located:

The Dierks Lumber & Coal Co., De Queen, Ark.

The Frost-Johnson Lumber Co., W. H. Harrison, Land Commissioner, Mansfield, La.

The Sabine Lumber Co., Zwolle, La.

The Pineland Mfg. Co., Pickering, La.

The Long-Bell Lumber Co., W. F. Ryder, Mr., Bon Ami, La.

The Locke-Moore Lbr. Co., West Lake, La.

The Industrial Lbr. Co., Beaumont, Texas.

#### RAILWAY ECONOMICS.

High costs of operation, due principally to the wage advances made during 1910, are making heavy inroads into the net earnings of American railways. Returns to the Interstate Commerce Commission for the two months ended February 28, 1911, as compared with the corresponding months of 1910, show a decrease of \$25.00 in total operating revenues per mile of line. Although the railway companies economized on maintenance, reducing expenditures on way and structures \$11.00 per mile, it cost them an average of \$27.00 more per mile to move their decreased volume of traffic in January and February this year than it did to handle the larger business of 1910, and net operating revenue shows a decrease of \$52.00 per mile for the two months.

While higher wages result in some increase in maintenance costs, by far the larger proportion of railway wage expenditures come under the head of transportation. It is under this heading, therefore, that the heaviest increases in operating costs have taken place. During the months of January and February, 1911, out of total operating expenses of \$1,330.00 per mile, transpor-

tation expenses (principally wages) amounted to \$722.00 per mile, an increase over January and February, 1910, of \$28.00 per mile.

The railways of the United States pay annually enormous sums in taxation. Leaving out of account their payments to the federal government under the law taxing net corporate income, they paid during the fiscal year ended June 30, 1910, to States, counties, and municipalities, the large aggregate of \$104,144,076.42 or more than eleven per cent of their net operating revenue.

The progress of American railways in this respect can best be realized by comparison with the railway systems of other countries. The most efficient railways of Continental Europe are those embraced in the Prussian-Hessian system in Germany. The combined area of Prussia and Hesse is nearly the same as the combined area of the States of New York, Pennsylvania, New Jersey, Delaware, and Maryland, and the Prussian-Hessian railways embrace approximately the same mileage as is operated in this group of States.

The Prussian-Hessian roads have the advantage of serving a territory with an average population of 279 per square mile, as compared with 168 in the American States. They also have the advantage of a very much lower wage scale. In 1907, the average daily wage paid to their employees was but 76 cents. In the same year the average employee below the grade of general officer of the road in the States mentioned received \$2.17 per day, and since that year wages on the American roads have been materially increased. Notwithstanding this very great difference in wages, the American roads carry more than twice the volume of freight per mile of line at rates that average just about one-half the average of the Prussian-Hessian roads. In 1908—the latest year for which Prussian statistics are available—the average revenue per ton per mile on the Prussian-Hessian system was 1.27 cents. In the same year the average revenue per ton per mile on the roads of the States above referred to was but sixty-four one hundredths of a cent.

The American roads are able to perform their service at one-half the Prussian rates while paying an average of nearly three times as high wages. American railway managers, seeking higher efficiency through heavier train loads, have spent vast sums of money for the strengthening and improving of their roadway and the modernizing of their equipment, with the result that, in 1908, the average capacity of the American freight car was 35 tons and the average train load in the States above mentioned was 464 tons. In the same year the average

capacity of the Prussian-Hessian freight car was but 15 tons and the average train load was but 210 tons.

#### THE EARNINGS OF THE K. C. S. RAILWAY COMPANY AND WHAT BECOMES OF THE MONEY.

Kansas City, Mo., April 10, 1911.

All employes of this Company are undoubtedly interested in its prosperity, because upon the same is dependent the living and prosperity of the employes themselves.

It is thought that it might be of interest for each employe to know the result of the operation of the Company, and while large figures often times are confusing, the figures given below show the disposition of each \$1,000.00 earned for a period of eight months ending February 28, 1911, being two-thirds of the usual fiscal year.

The expenditures were as follows:	
For maintaining tracks and buildings	98.86
For maintaining equipment . . . . .	128.46
Traffic expenses . . . . .	30.67
Moving trains, yard and station service, including casualties . . . . .	332.40
General expense . . . . .	34.84
Per diem on foreign cars, above per diem earned on K. C. S. cars . . . . .	33.36
Rentals paid . . . . .	2.21
Interest on bonds and equipment notes . . . . .	129.46
Taxes . . . . .	33.04

Total . . . . . \$823.30  
leaving \$176.70 for the owners of the property. Out of this balance part of the owners were paid in dividends on the preferred stock, \$80.22; (the owners of the property holding common stock to the extent of \$30,000,000.00 received nothing), leaving \$96.48 of each \$1,000.00 earned to be applied to additional facilities, or set aside for a rainy day.

There is one source of expense to the Company which the employes can aid materially in reducing, namely, the expense of casualties, particularly damage to freight in transit. The total expense of casualties, including wrecks, damage to freight and injuries to persons, for the period referred to, is \$27.03 for every \$1,000.00 earned, or 8% of the total charge for moving trains, yard and station service, and an aggregate amount of \$188,000.00.

None of the above figures represent any amount paid for permanent improvements, which all employes know has been very considerable, for the eight months of the present fiscal year, amounting to \$1,806,542.61.

J. F. HOLDEN,  
Vice-President.

## Industrial Notes

**Amsterdam, Mo.**—The Parrman & Rush stock of goods has been moved here from Adrian, Mo., and the new store has opened up for business. Stock \$15,000.

**Anderson, Mo.**—Messrs. Patterson and Pittman have established a handle factory and are turning out pick and hammer handles, singletrees, etc.

**Beaumont, Tex.**—The Miller-Link Lumber Company has purchased all the timber holdings of the Orange Lumber Company, paying therefor \$250,000. Incorporated: The Allardice-McMahon Tie & Timber Co., capital stock \$10,000.

**Fort Smith, Ark.**—The Arkansas-Oklahoma Fair Association has been incorporated with a capital stock of \$50,000. The Fort Smith Garment Co., organized several months ago, has completed its new factory and is now in operation.

**Heavener, Okla.**—The School Board has selected a site on which it will build a three-story brick school building, with six rooms and an auditorium to cost \$15,000. The Board of Equalization reports the taxable values of property in Heavener as follows: Real estate \$231,742; personal property \$244,324; railroad property \$200,000; total \$676,066.

**Joplin, Mo.**—New incorporations: Liberty Mining Co., capital \$100,000; Gager Mining & Milling Co., \$6,000; Emma C. Mining Co., \$50,000. Messrs Bayless & Sheldon have built a 200-ton Concentrating Mill. The U. S. Census gives Joplin 77 factories, capital invested \$2,992,000; cost of material used \$2,358,000; value of product \$4,136,600; employees 830; officials and clerks 186. The lead and zinc production for 1910 was as follows: Zinc 302,369 tons; lead 45,415 tons; total value \$14,200,000. Joplin Grocery Co. has purchased a lot for \$10,500 and will erect thereon a warehouse to cost \$20,000. The Central States Mining Co. is building a concentrating mill of 150 tons capacity. The American Zinc, Lead & Smelting Co. will construct a 1500 ton concentrating mill. Organized: The Southwestern Life Insurance Co., \$150,000.

**Lake Charles, La.**—Incorporated: Ida Oil Co., capital stock \$50,000; B. B. Oil Co., \$20,000; Calcasieu Oil & Mineral Co., \$50,000; Margaret Perkins Realty Co., \$36,000; Houston Packing Co. of Louisiana, \$20,000; Hillside Petroleum Co., \$25,000; American Lumber Co., \$1,000,000; Gulf Coast Rice Milling Co., \$50,000. Miss Susan McKeon has purchased from Orange Land Co. 16,000 acres of marshland for \$56,000, same to be drained and put in cultivation. City Council has sold sewer bonds to the value of \$125,000. The Wm. M. Rice Institute has transferred its timber lands to the Rice Land & Lumber Co., consideration \$4,395-871. The Pomelo Plantation Co. has begun the drainage of its 1500 acres of marsh-

land 12 miles south of the city. The Clooney Construction Co. will move its ship yard from Lockport to Lake Charles and greatly enlarge the plant. Mr. Jos. Bentley, of Alexandria, La., has secured an option from the Calcasieu Pine Lumber Co. on 79,000 acres of virgin pine timber land. Consideration \$2,500,000. The Southern Rice Growers' Assn. has consummated a sale of 250,000 barrels of rough rice, same to be shipped to Europe. Dredging on the Inter-Coastal Canal section between Lake Charles and Lake Sabine is to begin within 90 days. The section of canal completed will cost \$100,000. The Texas Co. (oil) will lay a 6-inch oil pipeline from Toomey station on the Southern Pacific Ry. to Lake Charles and thence to Anse La Butte on the Atchafalaya river, from which point oil can be carried in barges to New Orleans. The pipeline will carry 12,000 to 15,000 barrels per day. The Peavey-Byrnes Lbr. Co. has purchased 640 acres of timber land from H. W. Rock for \$27,260. The assessment of taxable property of Calcasieu Parish for 1911 amounted to \$29,318,390. Incorporated: The Spivey-Gay Company, \$30,000 to operate sawmills and turpentine camps. The lumber cut of Louisiana for 1909 amounted to 3,551,918,000 feet, valued at \$50,539,094.

**Leesville, La.**—Incorporated: Louisiana Land & Pecan Co., capital stock \$100,000.

**Lockesburg, Ark.**—A brick manufacturing plant has been organized here. Capacity 40,000 bricks per day.

**Mansfield, La.**—Incorporated: The village of South Mansfield, La.

**Mena, Ark.**—The Mena Waterworks Commission has sold \$65,000 worth of waterworks bonds. W. D. Durham & Co. have acquired the grocery business of J. B. Littlejohn & Co.

**Merwin, Mo.**—The Merwin State Business College, a new institution, has been formally opened to the public.

**Neosho, Mo.**—The Neosho Auto Company has acquired the garage of Geo. Hainsworth, and has opened up for business. The Neosho Canning factory is now contracting for its cannery stock and has about 70 acres of tomatoes contracted for.

**Pittsburg, Kans.**—Doctors Colleline, Nichols and Dudley will establish a modern surgical hospital.

**Sallisaw, Okla.**—Commercial Club organized, A. I. Doerr, secretary. Farmers State Bank has been changed to Farmers National Bank. Incorporated: The Gans Oil & Gas Co., capital stock \$10,000.

**Siloam Springs, Ark.**—Mr. Ed. McCulloch's new building will contain two store-rooms and an opera house with 1,000 seats.

**Texarkana, Tex.**—It is reported that the Commercial Acid Company, of St. Louis, will erect an acid factory here.

## Land and Real Estate Agents Along the Kansas City Southern Railway

The Kansas City Southern Railway Company has no lands to sell and is not financially interested in any way in the sale of lands along its line. The following named land and real estate agents are not agents of the Kansas City Southern Railway Company and handle lands entirely on their own responsibility, but are recommended to the Company as reputable men engaged in the real estate business in the various cities and towns along the line.

- Allene, Ark.—Allene Real Estate Co.  
 Amoret, Mo.—C. H. Hutchins.  
 Amoret, Mo.—Chas. R. Bowman.  
 Amsterdam, Mo.—Lawrence & McDonald.  
 Anderson, Mo.—Dunn & Chambellis.  
 Anderson, Mo.—Geo. W. Mitchell.  
 Ashdown, Ark.—Southern Realty & Trust Co.  
 Ashdown, Ark.—Ashdown Bank & Trust Co.  
 Atlanta, Tex.—Westbrooke & Willoughby.  
 Ballard, Okla.—Mid-West Land & Investment Co., Kansas City, Mo., 419 Reliance Bldg.  
 Beaumont, Tex.—Industrial Lumber Co.  
 Beaumont, Tex.—Bevil & Quinn.  
 Beaumont, Tex.—Bryan & Vaucheler.  
 Beaumont, Tex.—Heisig & Smelker.  
 Beaumont, Tex.—Junker & Edwards.  
 Beaumont, Tex.—Beaumont Land & Building Co.  
 Beaumont, Tex.—Ben Irby.  
 Beaumont, Tex.—Theodore Heisig.  
 Beaumont, Tex.—Brown Realty Co.  
 Beaumont, Tex.—Oswald Realty Co.  
 Beaumont, Tex.—Henry & Weaver.  
 Beaumont, Tex.—Jno. M. Lowrey.  
 Beaumont, Tex.—W. A. & W. W. Ward.  
 Beaumont, Tex.—Lloyd M. Blanchette.  
 Beaumont, Tex.—Wilson & Featherstone.  
 Benson, La.—A. M. Hale.  
 Benson, La.—Walter Nolan.  
 Benson, La.—D. H. Sebastian.  
 Benson, La.—Southern Development & Investment Co., 330 Midland Building, Kansas City, Mo.  
 Blanchard, La.—J. F. White.  
 Bloomburg, Tex.—J. M. Jones.  
 Converse, La.—G. I. Paul.  
 Cove, Ark.—Barton & Register.  
 Cove, Ark.—T. P. Fulton.  
 Cove, Ark.—J. R. Graham.  
 Decatur, Ark.—Collins & Hunsaker.  
 De Queen, Ark.—Farmers & Merchants Bank & Trust Co.  
 De Queen, Ark.—H. C. Towson.  
 De Queen, Ark.—Garrison & Co.  
 De Queen, Ark.—W. R. Sossamon.  
 De Queen, Ark.—Carlton & White.  
 De Queen, Ark.—Lewis W. Osborne.  
 De Quincey, La.—J. Lee Herford.  
 De Quincey, La.—O. T. Maxwell.  
 De Quincey, La.—De Quincey Land Company.  
 De Quincey, La.—Matt Lilleburg.  
 De Ridder, La.—Frank V. Howard.  
 De Ridder, La.—J. E. McMahon.  
 De Ridder, La.—Robert Jones.  
 De Ridder, La.—O. B. Pye.  
 Drexel, Mo.—Depue & Hill.  
 Drexel, Mo.—J. B. Wilson.  
 Drexel, Mo.—D. E. Crutcher.  
 Eagleton, Ark.—F. W. Blanchard.  
 Elk Springs, Mo.—John W. Miller.  
 Fort Smith, Ark.—C. W. L. Armour.  
 Fort Smith, Ark.—Kelly Trust Co.  
 Fort Smith, Ark.—Fort Smith Bank & Trust Co.  
 Fort Smith, Ark.—Arkansas Valley Trust Co.  
 Fort Smith, Ark.—W. H. Marshall.  
 Fort Smith, Ark.—R. R. Cravens.  
 Fort Smith, Ark.—Lyman Real Estate Co.  
 Fort Smith, Ark.—Rutzell & Trusty.  
 Fort Smith, Ark.—Lee & Robinson.  
 Fort Smith, Ark.—J. L. Lavenne.  
 Fort Smith, Ark.—Rogers & Young.  
 Fort Smith, Ark.—Dawson-Thomas Real Estate Co.  
 Fort Smith, Ark.—Charles P. Yaden.  
 Frierson, La.—The Frierson Co., Ltd.  
 Gentry, Ark.—R. J. Maxson.  
 Gentry, Ark.—D. & M. Land & Brokerage Co.  
 Gentry, Ark.—O. L. Hurley.  
 Gentry, Ark.—Griffin & Wa...  
 Gentry, Ark.—D. T. Sullivan.  
 Gentry, Ark.—Lowell Realty Company.  
 Gentry, Ark.—R. Van Meter.  
 Gentry, Ark.—Feeemster & Speer.  
 Gillham, Ark.—Gillham Real Estate Co.  
 Goodman, Mo.—T. W. Roberts & Co.  
 Goodman, Mo.—J. O. Pogue.  
 Goodman, Mo.—G. W. Whited.  
 Goodman, Mo.—J. B. Welsh & Co., Finance Bldg., Kansas City, Mo.  
 Grandview, Mo.—Y. T. Perkins.  
 Grandview, Mo.—W. M. Dyer.  
 Granniss, Ark.—E. H. Poe.  
 Granniss, Ark.—Hogan & Coyle.  
 Gravette, Ark.—J. T. Oswalt.  
 Gravette, Ark.—Wm. Frazer.  
 Gravette, Ark.—O. T. Drennan.  
 Hatfield, Ark.—Arnold & Trigg.  
 Hatfield, Ark.—Shafer & Hammund.  
 Hatton, Ark.—Ozark Realty Co.  
 Heavener, Okla.—Stewart & Fowler.  
 Heavener, Okla.—Lee Thomas.  
 Heavener, Okla.—J. M. Courington.  
 Heavener, Okla.—W. F. Colton.  
 Horatio, Ark.—J. W. Everett.  
 Horatio, Ark.—Sessions-Pride Land Co.  
 Horatio, Ark.—L. L. Porter.  
 Hornbeck, La.—L. D. Woosley.  
 Hornbeck, La.—D. B. Pate.  
 Howe, Okla.—John Begley.  
 Howe, Okla.—C. E. McCartney.  
 Howe, Okla.—State Bank & Trust Co.  
 Hume, Mo.—H. C. Curtis.  
 Hume, Mo.—Wayts & Beadles.  
 Hume, Mo.—Wilson & Bloomfield.  
 Jaudon, Mo.—E. S. Harrison.  
 Joplin, Mo.—McDonald Land & Mining Co.  
 Joplin, Mo.—Marlon Staples.  
 Joplin, Mo.—Pile & Perry.  
 Joplin, Mo.—Conqueror Trust Co.  
 Joplin, Mo.—S. H. & Roy E. Stephens.  
 Joplin, Mo.—St. Paul Mining Co.  
 Joplin, Mo.—W. H. Dalton.  
 Lake Charles, La.—Orange Land Co. Ben M. Foster, Mgr.  
 Lake Charles, La.—North American Land & Timber Co.  
 Lake Charles, La.—R. L. Coleman.  
 Lake Charles, La.—H. F. Von Phul.  
 Lake Charles, La.—Leon & E. A. Chavanne.  
 Lake Charles, La.—H. M. Chitwood.  
 Lake Charles, La.—W. K. Bunker.  
 Lake Charles, La.—O. S. Dolby.  
 Lake Charles, La.—The Hi-Mount Land Co.,  
 Lake Charles, La.—J. B. Watkins.  
 Lake Charles, La.—Hammond & Wentz.  
 Lanagan, Mo.—C. R. Wortham.  
 Lanagan, Mo.—Frank B. Dolson, 202 Commerce Bldg., Kansas City, Mo.  
 Leesville, La.—P. G. Pye & Co.  
 Leesville, La.—McFarland & Wintle.  
 Leesville, La.—Lee McAlpin.  
 Leesville, La.—Hicks Abstract & Realty Co.  
 Lockesfield, Ark.—A. Rawlins.  
 Lockesburg, Ark.—G. A. Nall.  
 Mansfield, La.—W. H. Harrison, Jr.  
 Mansfield, La.—South Mansfield Realty Co.  
 Marble City, Okla.—Barry Dotson.  
 Mena, Ark.—Dennis, Kelly & Stratton.  
 Mena, Ark.—Hamilton & Horner.

- Mena, Ark.—J. H. Naylor.  
 Mena, Ark.—M. B. Legate.  
 Mena, Ark.—W. A. Ragland.  
 Merwin, Mo.—Ludwick Real Estate Co.  
 Mulberry, Mo.—Poligrino & Bumgarner.  
 Neosho, Mo.—S. L. Davis.  
 Neosho, Mo.—R. B. Rudy.  
 Neosho, Mo.—L. W. Overbeck.  
 Neosho, Mo.—Bennett & Banks Fruit Land Co.  
 Noel, Mo.—H. C. Alexander.  
 Panama, Okla.—W. D. Massey & Son.  
 Pittsburg, Kan.—J. C. Armstrong, 101 West 5th St.  
 Pickering, La.—D. La Brie, Keith & Perry Bldg., Kansas City, Mo.  
 Port Arthur, Tex.—Port Arthur Land Co.  
 Poteau, Okla.—R. E. Patrick.  
 Poteau, Okla.—Tom Wall.  
 Poteau, Okla.—Wyley Lowrey.  
 Poteau, Okla.—W. H. Harrison.  
 Poteau, Okla.—Poteau Valley Realty Co. F. W. Bird, Mgr.  
 Poteau, Okla.—A. E. Deason.  
 Rich Mountain, Ark.—T. W. Blanchard.  
 Sallisaw, Okla.—Sallisaw Realty Co.  
 Sallisaw, Okla.—Smith & Gross.  
 Shreveport, La.—Wm. Hamilton & Co., 521 Marshall St.  
 Shreveport, La.—J. G. Hester, 512 Market St.  
 Shreveport, La.—Queensboro Land Co., First National Bank Bldg.  
 Shreveport, La.—S. B. Simon.  
 Shreveport, La.—T. L. Hammett.  
 Shreveport, La.—G. E. Gilmer, 213 Milam St.  
 Shreveport, La.—Walter H. Poik, Cooper Bldg.  
 Shreveport, La.—Louisiana R. E. & Development Co.  
 Shreveport, La.—W. A. Jones.  
 Shreveport, La.—Emery Bros.  
 Shreveport, La.—L. C. Bulkey, 12 Simon Bldg.  
 Siloam Springs, Ark.—J. D. Chamberlain.  
 Siloam Springs, Ark.—Bank of Commerce.  
 Siloam Springs, Ark.—Shannon Realty Co.  
 Siloam Springs, Ark.—Dunlap & Son.  
 Siloam Springs, Ark.—Moss Bros.  
 Siloam Springs, Ark.—J. A. Petty.  
 Siloam Springs, Ark.—Oklahoma Realty Co.  
 South Mansfield, La.—De Soto Industrial Co., J. C. Yarbrough, Secy.  
 Spiro, Okla.—Hickman & Harris.  
 Spiro, Okla.—G. M. Berryberry.  
 Spiro, Okla.—M. Smith.
- Smyth Junction, La.—Midway Lumber Co.  
 Starks, La.—Chas. Batchelor.  
 Starks, La.—V. C. Clark.  
 Stilwell, Okla.—W. H. Davis.  
 Stilwell, Okla.—Blanck & Corley.  
 Stilwell, Okla.—R. R. McCloud.  
 Stilwell, Okla.—Stilwell Land Co.  
 Stotesbury, Mo.—F. B. Croft.  
 Stotesbury, Mo.—J. G. Rennie.  
 Stotesbury, Mo.—D. A. Beck Realty Co.  
 Sulphur Springs, Ark.—C. F. Church.  
 Sulphur Springs, Ark.—C. J. Williams.  
 Sulphur Springs, Ark.—Guthrey & McCallum.  
 Texarkana, Ark.—Tex.—M. C. Wade, 305 State National Bank Bldg.  
 Texarkana, Ark.—Tex.—W. H. Ward, 219 State National Bank, Bldg.  
 Texarkana, Ark.—Tex.—J. G. Johns.  
 Texarkana, Ark.—Tex.—G. H. Hays, 115 East Broad St.  
 Texarkana, Ark.—Tex.—Ralph Moore, 122 East Broad St.  
 Texarkana, Ark.—Tex.—Louis Heilbron.  
 Texarkana, Ark.—Tex.—Texarkana Trust Co.  
 Texarkana, Tex.—F. A. Simonds, 219 Vine St.  
 Texarkana, Tex.—W. G. Hancock, Rialto Bldg.  
 Texarkana, Tex.—G. Less Co.  
 Vivian, La.—A. F. Powell.  
 Waldron, Ark.—John D. Baker.  
 Waldron, Ark.—Scott County Development Assn., Jno. R. Cox, Secy.  
 Westville, Okla.—W. H. von Hartman Real Estate Co.  
 Westville, Okla.—T. E. Sheffield.  
 Westville, Okla.—P. J. Dove.  
 Westville, Okla.—W. J. Foreman.  
 Wickes, Ark.—Ridgeway & Green.  
 Wickes, Ark.—L. C. Wilson.  
 Wilton, Ark.—A. Kennen.  
 Winthrop, Ark.—Sessions Land Co.  
 Zwolle, La.—H. A. Miner & Co.  
 Zwolle, La.—Louisiana Development Co., Central City, Neb.
- Indian Lands, Oklahoma.**  
 J. G. Wright, Commissioner to the Five Civilized Tribes, Muskogee, Okla.  
 Dana H. Kelsey, U. S. Indian Agent, Muskogee, Okla.
- U. S. Homestead Lands in Arkansas.**  
 Receiver, U. S. Land Office, Camden, Ark.

## Commercial Associations

- Amsterdam, Mo.—Commercial Club, Geo. V. Boswell, Secy.  
 Anderson, Mo.—Commercial Club, Bert Dunn, Secy.  
 Ashdown, Ark.—Little River County Bank, W. C. Martin, Cashier.  
 Beaumont, Tex.—Chamber of Commerce, T. W. Larkin, Secy.  
 Fort Smith, Ark.—Commercial League, H. G. Spaulding, Secy.  
 Granniss, Ark.—First Bank of Granniss, Jno. P. Logan, Cashier.  
 Gravette, Ark.—Commercial Club, Herb Lewis, Secy.  
 Heavener, Okla.—Ten Thousand Club, W. S. Barwick, Secy.  
 Howe, Okla.—Commercial Club, H. W. Moreland, Secy.  
 Joplin, Mo.—Commercial Club, H. A. Forkner, Secy.  
 Lake Charles, La.—Board of Trade, Jno. M. Marshall, Secy.  
 Leesville, La.—Commercial Club, Geo. H. Schweitzer, Secy.  
 Mansfield, La.—Chamber of Commerce, J. M. Rodgers, Secy.  
 Mansfield, La.—Bank of Commerce, Ben Johnson, Cashier.  
 Many, La.—Sabine Valley Bank, Frank Hunter, Cashier.  
 Mena, Ark.—Mena Land & Improvement Co., W. C. B. Allen, Mgr.  
 Merwin, Mo.—Commercial Club, Dr. J. R. Martin, Prest.  
 Pittsburg, Kan.—Pittsburg Commercial Club.
- Neosho, Mo.—Commercial Club, John M. Sherwood, Secy.  
 Noel, Mo.—Commercial Club, H. C. Alexander, Secy.  
 Port Arthur, Tex.—Board of Trade, O. Owen, Secy.  
 Port Arthur, Tex.—Citizens' League, Jan Van Tyen, Secy.  
 Poteau, Okla.—Business Men's League, O. C. Fountain, Secy.  
 Poteau, Okla.—First National Bank, Tom Wall, Cashier.  
 Sallisaw, Okla.—Commercial Club, A. I. Doerr, Secy.  
 Shreveport, La.—Chamber of Commerce, E. L. Colgin, Secy.  
 Shreveport, La.—Publicity Club, Walter H. Polk, Secy.  
 Siloam Springs, Ark.—Chamber of Commerce, Gen. Williams, Secy.  
 South Mansfield, La.—South Mansfield Commercial Club, J. J. Whiting, Secy.  
 Sulphur Springs, Ark.—Commercial Club.  
 Spiro, Okla.—Commercial Club.  
 Texarkana, Ark.—Tex.—Boosters' Club.  
 Texarkana, Ark.—Tex.—Board of Trade, V. E. Buron, Secy.  
 Vivian, La.—Progressive League, T. E. Bird, Secy.  
 Waldron, Ark.—First National Bank.  
 Waldron, Ark.—Scott Co. Development Assn., Jno. R. Cox, Secy.  
 Westville, Okla.—People's Bank, K. G. Comfort, Cashier.  
 Wickes, Ark.—Boosters' Club, O. P. Ridgeway, Secy.

## Agricultural and Horticultural Associations Along the Kansas City Southern Railway

- Amoret, Mo.—Darby Fruit Farm, J. F. Ridgell, Mgr.
- Anderson, Mo.—Berry Growers' Association, W. E. Roark, Secy.
- Ashdown, Ark.—Fruit Growers' Association, A. T. Graves, Secy.
- Atlanta, Tex.—Fruit and Truck Growers' Association, J. M. Fletcher, Secy.
- Ayers Spur, La.—Farmers' Union, G. W. Davis, Secy.
- Barham, La.—Farmers' Union, W. H. Rayburn, Secy.
- Beaumont, Tex.—Citrus Growers' Association, Geo. A. Smith, Pres.
- Beaumont, Tex.—Truck Growers' Association.
- Beaumont, Tex.—Southern Rice Growers' Association, Dr. A. C. Wilkins, Secy.
- Benson, La.—Fruit and Truck Growers' Association, J. D. Porter, Secy.
- Bloomburg, Tex.—Fruit and Truck Growers' Association, W. I. Easters, Secy.
- Bon Ami, La.—Long-Bell Lbr. Co., Experimental Farm, T. S. Granberry, Supt.
- Converse, La.—Farmers' Union, W. E. Springer, Secy.
- Cove, Ark.—Fruit & Truck Growers' Association, B. J. Spencer, Secy.
- Decatur, Ark.—Fruit Growers' Association, John Kuebler, Secy.
- Decatur, Ark.—Plank Fruit Company, E. N. Plank, Secy.
- Decatur, Ark.—Holland-American Fruit Products Co., Geo. Brusse, Mgr.
- Decatur, Ark.—Farmers' Union, J. P. Trook, Secy.
- De Queen, Ark.—Fruit Growers' Association, A. Johnson, Secy.
- DeQuincey, La.—Fruit & Truck Growers' Association, Ralph Escabas, Secy.
- De Ridder, La.—Truck Growers' Association, W. K. Ford, Secy.
- Fisher, La.—Farmers' Union, D. W. Horton, Secy.
- Florien, La.—Farmers' Union, I. N. McColister, Secy.
- Fort Smith, Ark.—Market and Shippers' Association, P. J. Brockman, Secy.
- Gentry, Ark.—Fruit Growers' Association, O. W. Patterson, Secy.
- Gentry, Ark.—Fruit Growers' Union, Chas. Viberg, Secy.
- Goodman, Mo.—Berry and Fruit Growers' Association, A. M. Ellis, Secy.
- Goodman, Mo.—Ozark Orchard Co., W. B. Whetmore, Mgr.
- Granniss, Ark.—Farmers' Union, Elmer Pringle, Secy.
- Granniss, Ark.—Granniss Shippers' Union, L. L. Lofton, Secy.
- Gravette, Ark.—Fruit Growers' Association, O. J. Halliday, Secy.
- Gravette, Ark.—Gravette Poultry Men's Association, Ed Kaselack, Secy.
- Gravette, Ark.—Farmers' Co-Operative Union, O. J. Halliday, Secy.
- Gravette, Ark.—Farmers' Union, R. F. West, Secy., Route 4.
- Heavener, Okla.—Farmers' Union, J. E. Johnson, Secy.
- Heavener, Okla.—Fruit & Truck Growers' Association, J. W. L. Corley, Secy.
- Hodgens, Okla.—Farmers' Union, Dick Reed, Secy. Houston P. O. Okla.
- Horatio, Ark.—Truck Growers' Association, G. M. Williamson, Secy.
- Horatio, Ark.—Farmers' Union, Thos. J. Browning, Secy., Route 1.
- Hornbeck, La.—Farmers' Union, Geo. Miller, Secy.
- Joplin, Mo.—Gardeners' Association, C. G. Dillworth, Secy.
- Juanita, La.—Fruit and Truck Growers' Association, H. J. McBeath, Secy.
- Lake Charles, La.—Calcasieu Parish Fruit & Truck Growers' Association, Al. Ribbeck, Secy.
- Lanagan, Mo.—Lanagan-Pineville Fruit Growers' and Shippers' Association, J. E. Leeward, Secy.
- Leesville, La.—Farmers' Union, M. A. Cavaghan, Secy.
- Lewis, La.—Farmers' Union, J. S. Lewis, Secy.
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- Neosho, Mo.—Southwest Fruit Growers' Association, Geo. Hatzfeld, Secy.
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- Tipton, Mo.—Berry Growers' Association, W. D. Cox, Secy.
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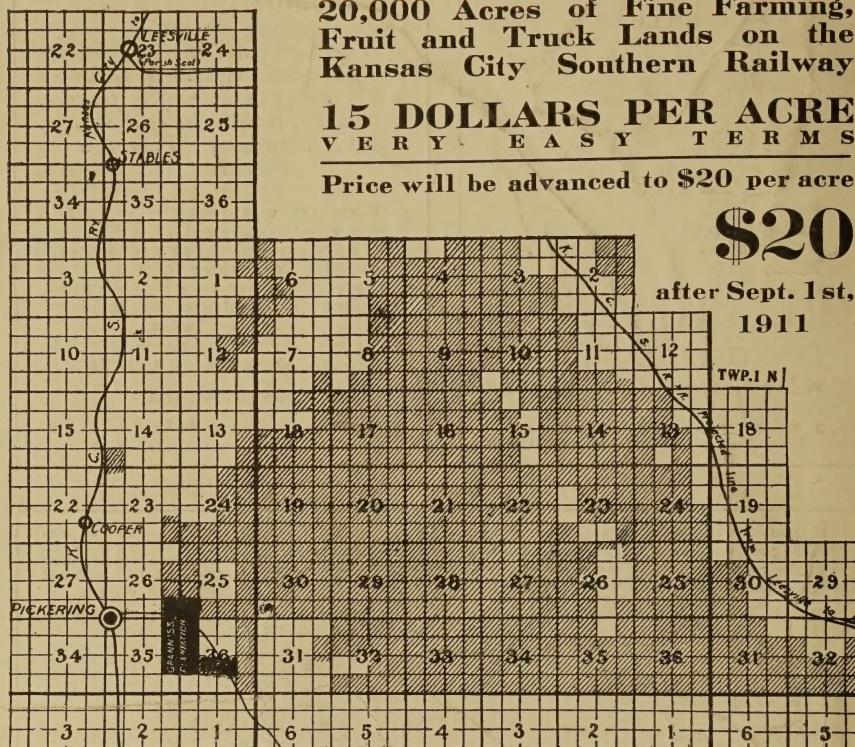
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